

# The Manitoba Medical Review

Vol. 26

FEBRUARY, 1946

No. 2

## A Medical Officer in Hong Kong

J. N. Crawford, Lt.-Col., R.C.A.M.C.

At a meeting of the Winnipeg Medical Society some weeks, I had the opportunity of relating some of my experiences as a Prisoner of War of the Japanese from December, 1941, to August, 1945. My story was well received at that time, and it has been suggested that members of the profession in the province might also be interested in hearing it. This article is the result of that suggestion. It does not pretend in any way to be a scientific article. I hope to publish a fairly extensive account of the scientific aspect of my experience at a later date. Nor do I propose to defend or condemn the attitude of the captor Government; that I leave to more capable and more interested persons than myself. Here I relate merely my own story to my own friends, and if the first person singular seems to loom unduly, I may perhaps be forgiven for it.

As many of you know, I left Canada in October, 1941, as Medical Officer to the 1st Battalion, the Winnipeg Grenadiers. This was a unit of a small force sent to reinforce the garrison at Hong Kong. I was also to serve as Senior Medical Officer of this force. With me were three other medical officers: S. M. Banfill of Quebec, J. A. G. Reid of Vancouver, and G. C. Gray, Jr., of Edmonton; two nursing sisters, May Waters of Winnipeg and Kay Christie of Toronto; and two dental officers, W. R. Cunningham of Souris and J. C. M. Spence of Fort William. The dental officers had a half-dozen other ranks as chair assistants and mechanics. We were well equipped with medical and dental supplies, taking with us a good deal more than we actually needed, considering that we were to be posted in a well-established British garrison.

The voyage across the Pacific was comparatively uneventful. We sailed from Vancouver on October 27th, on the S.S. Awatea, and were reasonably occupied in the care of the casual sick. We met one submarine in mid-ocean, which was discovered, to our relief, to be friendly. We had one medical case of some interest. A soldier who had joined us only a few days previously was admitted to the sick bay, vomiting and semi-comatose. He denied any previous illness or the taking of any medicines or drugs. His urine was sugar free. He died a few hours after admission. The correct diagnosis was made only when an inventory of his personal effects was taken, after his death. We discovered in his kit bag a supply of syringes and hypodermic needles, and enough

insulin to treat a severe diabetic for six months. He was evidently a diabetic who had become seasick and begun to vomit, but who had continued to take his insulin. He died of hypoglycaemia.

We arrived in Hong Kong without any unusual incident. We were housed in Shamshuiipo Barracks in the outskirts of the City of Kowloon. We landed on the 16th of November, and for the first few days after our arrival we busied ourselves with routine tasks incident to "settling-in" such as a check of sanitary conditions, setting up venereal disease control measures, introducing ourselves to the other medical officers in the area, etc.

On the night of November 25th we had a severe outbreak of food poisoning among troops who had been eating sausage meat at the canteen. This is viewed in retrospect with some surprise, as we ate, during the next three years, similar stuff from badly "blown" tins, without similar harmful effect. By the end of November the incidence of venereal disease was reaching alarming proportions, in spite of all our efforts to prevent it. It was indeed obvious that we were living in a very "dirty" station.

During the last two weeks of November we spent a good deal of time in our battle positions in the hills familiarizing ourselves with the terrain and our duties in case of war. On December 3rd I was posted as second in command to the Hong Kong Field Ambulance. This was a heterogeneous organization composed of regular R.A.M.C. personnel, members of the medical company of the local Volunteer Defence Corps and members of the St. John Ambulance Brigade. The Field Ambulance was responsible for the preliminary treatment of battle casualties, and for transporting these casualties to the various hospitals. At the time I received this appointment, the Field Ambulance was in training at a camp on the border of the New Territories. I at once set out to join my new associates, and spent three days with them, learning something of the geography of the New Territories. The Japanese were in occupation of South China at this time, and on many occasions I saw Japanese patrols on the China side of the boundary. We viewed one another with a good deal of mutual interest.

On the 6th of December, because of the gravity of the general situation, we were recalled from the New Territories. On the 7th we took up our battle positions. On the 8th, we were at war.

Of the fighting itself, I can say but little. The Japanese were too many and too strong for us. We had nothing in the way of aircraft, and had to rely upon anti-aircraft batteries for our protection. These were insufficient for our purposes. By the 13th or 14th, the Japanese had broken through our mainland defences and were in control of the Kowloon peninsula. The roads on the hilly island of Hong Kong were very vulnerable to aerial attack, and this greatly interfered with the efficiency of the Field Ambulance which was attempting to move casualties back to the hospitals. Some of our hospitals were also bombed. In the course of seventeen days' fighting, we lost practically all of our Ambulance vehicles as a result of enemy action. On the 19th, the Japanese crossed over to the island of Hong Kong from the mainland. They infiltrated our first line defence positions and drove a wedge right across the island following the collapse of a very gallant but very hopeless stand by a small party of Canadians at Wong Nei Chong Gap. The group I was with was confined to the western end of the island by this dividing wedge, and I lost all useful contact with those in the eastern end. We were gradually forced up into the hills, where we ran out of drinking water. On December 25th, the garrison capitulated. We thus became prisoners of war.

Nothing happened for several days. We saw occasional patrols of Japanese who looked at us with curiosity, indifference or scorn, and passed on without paying us further attention. We had been told, on the 25th, to stay in the positions in which we found ourselves. However, the exigency of hunger and thirst forced us to try to come down from the heights to a lower level. This we did, encountering parties of Japanese on the way who sometimes searched us, but who were generally well behaved. We finally arrived at the British Military Hospital on Bowen Road. Late in the evening of the 29th we received orders to rendezvous in the city of Victoria at dawn on the following day. Hospital patients and some hospital staff were to remain behind. All others were to assemble, with only such baggage as they could carry on their person, and were to be prepared to march to some place of internment. We had no idea where that place of internment might be, although there were a good many rumours. We were going to Fanling Golf Course, thirty miles away. We were going to Canton, a hundred miles away. We were starting on a long overland march to Shanghai. Thus we said, and had rumour had its way, we might well have swum to Japan itself.

On the morning of the 30th we set out for our unknown destination. Everyone was travelling as "light" as possible. It was impossible for

me to take much in the way of medical stores but I loaded my kit with those things which I thought might be most useful and most easy to carry. Some sulpha drugs, morphine, iodine, chloroform and a pocket case of instruments seemed most important.

We marched to an assembly point near the ferry pier, crossed the harbour in a ferry boat and began to march through Kowloon City. There was no transport. The general marched. The private soldier marched. The sick and wounded marched. The streets, which three weeks before had been lined with British flags were now blazoned with the Japanese Rising Sun. The worthy citizens of Kowloon, who three weeks ago had been British subjects, living with us and doing business with us, now jeered and spat upon us as we passed. It was all very jolly.

Late in the afternoon, by a meandering route we came once more to the gates of Shamshui po camp. A ragged, footsore rabble, we marched through those gates for the second time. At the gates were closed behind us. Prison camp life had begun.

We had left Shamshui po a clean, habitable barracks, capable of accommodating two thousand men. We returned to find it a shambles. Looters had been busy in our absence. Door and window frames, and woodwork everywhere had been ripped out. All plumbing fixtures had been torn away, and water gushed from the gaping broken pipes. Every stick of furniture was gone. Nothing but the bare walls and roofs remained. In this shambles came seven thousand men of all colours and creeds. British, Canadians, Indian and Chinese, officers and men, in we pour until there was barely room to stand. We had little shelter, few blankets and no food. We huddled together for warmth. Under such circumstances it was not surprising that disease soon menaced us. Many of the troops, due to failure of the water supply, had developed dysentery during the battle, and this spread quickly throughout the camp.

It was obvious that medical care was urgently needed. We were not short of help, as we had with us a good many officers and other rank members of the R.A.M.C. Drugs were short, but magots had done what I had done, and loaded the most pockets with supplies. What we most urgently needed at this point was space, a hospital to work in. So we set about establishing a hospital. We selected an officer's mess building as a suitable site, and began to clean it up. We had no brooms, no shovels. We whittled plugs of wood with which to stop up the gushing water pipes. We scraped the floors with pieces of board and broken glass. We cleared the drains with our hands. Finally we had a floor, reasonably cle-

on which the sick could lie. The roof was rain-proof. At our urgent request, the Japanese brought in bales of sacking. This we used to close the empty window spaces and door frames. Sacking on the floor made a bed of sorts. Sacking served as blankets. A billiard table, too heavy to be stolen, was turned into an operating table. Instruments were sterilized in a mess tin over a small bonfire. In these primitive surroundings we cared for the sick and did such surgery as was urgently needed.

For the first month, the food situation was pretty grim. The Japanese brought us in rice and salt, enough rice to supply each man with 226 grammes per day. We had no cooking utensils, and had to prepare our rice in converted gasoline drums. The remnants of gasoline added a certain piquancy to the rice, as you may imagine. After two weeks, some live pigs were brought into camp, enough to supply each man with 180 grammes. This was stewed. There was not much, but what there was, was enough to cause a good deal of nausea and vomiting. I estimate that our total average daily intake during that first month was less than 900 calories. We were constantly hungry. We were cold. We were bewildered. Altogether, we were a pretty miserable lot.

One of my friends, a local volunteer corps officer, escaped during that first month. He suggested that I go with him. I refused this opportunity for three reasons: First, it was obvious that medical officers were going to be urgently needed in the prison camp, and my duty seemed to be to remain with the men; second, I felt that anyone of my unusual height would minimize the chances of any party getting through; and third, I was damned scared, and preferred to stay with the devil I knew. I deeply regretted my decision on a good many occasions subsequently.

The Japanese brought in no drugs during that first month. I have mentioned that they did bring in bales of sacking which we utilized in the "hospital." They also brought in some bed sheets, arm baths and urinals. Toward the end of the month, they brought in about fifty camp stretchers, upon which we placed the men who were then the most sick. They also brought in a good many packets of chloride of lime. This was apparently directed against the dysentery epidemic which was raging.

Toward the end of January all the Canadians were moved out of Shamshuipo and sent over to North Point Camp on Hong Kong Island. A truck was provided for the transportation of the sick. Everyone else marched back through the streets of Kowloon City. Those who had managed to

carry any amount of kit into Shamshuipo with them were now too weak to carry it out.

North Point had been built by the British as a camp for Chinese refugees. A few of the buildings had been damaged by shell fire, but there had been no looting such as there had been in Shamshuipo. There was a fair amount of glass in the windows, the huts still had doors. There were flush latrines. Except that we were badly overcrowded, we were generally much better off than we had been. The food situation was also somewhat better. From this time on, we were provided with enough rice and vegetables to supply about 2,000 calories per man per day.

From the medical point of view, we had not improved our position much. The camp was black with flies. There was a garbage dump just to the west of the camp, old Japanese horse lines to the south, and the beach to the east was covered with dead and rotting bodies. Our hospital was a small warehouse with a very leaky, shell-scarred roof. Our medical staff was now limited to our own medical officers. We again set about the arduous task of establishing a decent hospital in such surroundings, and of training volunteer regimental personnel as nursing orderlies. We did have one big advantage in North Point, and that was that we were on the same side of the harbour as Bowen Road Hospital. The Japanese sergeant who was in medical charge of the camp realized our difficulties, and according to his limited ability he helped us as much as he could. I was able to get the seriously sick up to Bowen by truck almost every day. And of course on every return trip I brought back all the medical supplies I could get.

It was at this time that I first realized that if we were to get anything from the Japanese, we would have to use indirect methods. A direct request, however reasonable, was certain to be refused. On the other hand, a Japanese could be placed in a position where the refusal of a personal request would result in a "loss of face" for him. All my subsequent dealing with the Japanese were directed upon these lines. The little sergeant whom I have just mentioned, spoke English. He had studied Shakespeare in the Imperial University in Tokyo. He was very proud of his knowledge. I read Shakespeare aloud to him, and corrected his reading, for hours at a time. A pathetic and resonant passage from Romeo and Juliet or Hamlet would produce assistance when the urgent need of the moment would fail to do so. Shakespeare wrote better than he knew.

We remained at North Point Camp until September, '42. Dysentery ravaged the camp

continually. Pellagra and Beriberi began to manifest themselves in March, and continued to become more severe. In August, we began to discover cases of Diphtheria. A large party had to be sent out of camp every day, for work on an airport that the Japanese were constructing. There were not enough fit men to make up the required number, so we had to select the less sick, and send them out to do hard physical work. Our plight seemed hopeless. We could not increase our food supply. With the conditions of overcrowding under which we were living, it was impossible to institute anything like an efficient quarantine. We were unable to obtain antidiphtheritic serum. My request for a general throat swab of the camp and isolation of carriers, was ignored. In spite of all this, morale was extraordinarily good. Our Auxiliary Services Officers were tireless in their efforts. They got a good library established, and organized a concert party which entertained us every Saturday night. On the first of July, our ball team played against a team from the Japanese guards, and beat them soundly.

Toward the end of September, we were all bundled out of North Point Camp, and moved back to Shamshuipo. I took with me six men with frank diphtheria as well as numerous cases of dysentery. Permission to move them to Bowen Road had been refused. Almost everyone had avitaminosis in some form or another.

Now began the darkest period of our internment. When we returned to Shamshuipo, we found that the hospital had expanded considerably. Dysentery, diphtheria and avitamnosis had demanded an increase in hospital accommodation. The Indians had all been moved to a separate camp, and many of the Chinese had been released to go to their own homes. A draft of British officers and men had left for Japan a few days before our arrival. But there was still no accommodation in the hospital for the large number of sick which came over with us. It was therefore necessary again to make provision for our Canadian sick. This we did by utilizing badly needed barrack room space for hospital purposes. We had brought with us from North Point all of the little hospital equipment which we had.

By the end of October, I had admitted 283 cases of diphtheria to this hospital, as well as 198 cases of dysentery and 47 cases of avitaminosis. On the 3rd of October I managed to purchase a little antidiphtheritic serum through the agents of the "black market." On October 5th I was issued with a further small supply by the Japanese. One of the most difficult decisions we ever had to make now faced us. That was the decision as to which of our numerous cases of diphtheria were to receive serum and which were not. We

had only a very little. All cases could not have it, some must do without. We felt that such power over life and death should be the prerogative of the Deity, but at that moment He seemed to have forgotten us. Our final decision was simple, and I believe fairly sound. Any man who had shown membrane forty-eight hours before serum became available, did not receive any. We gave serum only to fresh cases, where we felt a small quantity might do some good. Our maximum dosage at that time was 2,000 units, our usual dosage 1,000 units. And this minute quantity saved life.

One of the very troublesome manifestation of avitaminosis was an agonizing pain in the feet and legs. The troops called this "electric feet," which seemed adequately to describe the symptom. Such cases were grouped together in one section of the hospital, and this section was aptly named by the troops, "the Agony Ward." Many a time have I made night rounds on this ward to find all the inmates with their feet resting on the cold cement floor, or soaking their feet in cold water. I would find them rocking back and forth, and crying with pain. Because the "soaking" treatment led to maceration of the skin and secondary infection, it was strictly forbidden. But I could not find it in my heart to be too severe upon the offenders. I could offer them no other form of relief. Never have I felt so helpless.

In the month of October, there were forty-one deaths among Canadians alone. The others in the camp were dying off at about the same rate. There were two or three funerals every day.

It was at this time that I made my first personal acquaintance with Japanese corporal punishment. Beatings had been of common occurrence, but I had missed any such treatment until now. But now the Japanese became very annoyed with me. It seemed it was not the thing to do, to allow men, who had received no serum, to die of diphtheria, or men who had no food, to die of starvation. So I got a bit of a "slapping around" My dignity was hurt more than anything else, but I found it intensely annoying to be pushed around by a slant-eyed, bandy-legged bastard whose neck I could quite easily have broken. But machine guns trained on the camp are great deterrent to riot, and I grinned and told it. Oddly enough, nobody died the following day. Perhaps the Japs had the right idea.

When I name this month "The Black October," I think you will see what I mean. Our existence seemed to have reached its lowest point. Death, starvation and maltreatment were all we had to look forward to, and many of us felt that those who had already died were the fortunate ones.

But perhaps the very gravity of the situation was our salvation. The Japanese authorities were finally forced to open their eyes to what was going on. They began to do throat swabs on all the inmates of the camp, and persisted in this until the epidemic of diphtheria was under control. Facilities were provided for the isolation of carriers. Diphtheria killed a great many people in camp. One hundred and thirty Canadians died of it. But, strangely enough, diphtheria was also responsible for saving a great many lives. As the supply of serum increased, we were able to give a reasonable therapeutic dose, and the danger of the disease was greatly minimized. But more important still, patients with diphtheria and carriers were isolated for a long time. This meant that they could not be sent on work parties. And the long rest which was thus granted saved a great many men from death by exhaustion.

Late in October I was able to obtain Nicotinic Acid through the Japanese guards. It was purchased in the "black market." Now finally we had a weapon to use against pellagra, although our supply was limited, and had to be used very carefully. In November we were amazed to receive a shipment of foodstuffs through the International Red Cross. We had given up all hope of any assistance from this agency, although we knew that every effort was being made on their part to help us. When their assistance finally did come, what a grand surprise it was. We received cases of bully beef, meat and vegetable ration, cocoa, dried fruit, sugar, ghi (a butter made from Indian buffalo milk), and attah (a flour made from soft Indian wheat). We also received some clothing. This changed the whole picture of the future. We now had reason to hope that these shipments might be repeated, and that except for accidents, we stood a good chance of surviving our internment. We did not allow our optimism to govern our judgment. We doled out the foodstuffs very carefully, enough to bring the caloric value up to about 2,800 calories, with a protein content from all sources of about 70 grammes. In this way we managed to spin out this supply of food for some fifteen months. It was just as well that we did, for never again did we receive such a shipment.

Together with the bulk foods in this shipment we received some individual food parcels, enough to give every man in camp three in the succeeding five months. This meant that the majority of men managed to save something of their first parcel for an extra celebration on Christmas Day. This, with the special meal that was provided by the kitchen, made what was, for us, a very merry Christmas indeed. And the prospect for 1943 was much brighter than it had been.

In January, '43, the first Canadian draft for Japan left camp. The personnel of this draft were selected in a pretty typical Japanese hit and miss fashion. One day, "General Assembly" was sounded. Everyone fell in on the road. A Japanese officer then ordered the front rank to advance five paces. This was repeated for the other ranks. Any man who could walk those five paces was considered to be fit to go as a labourer to Japan. He might be as blind as a bat, he might have a heart that beat 150 to the minute, he might have an arm off, but to the Japanese he was fit. Truly, Japanese medical science is a wonderful thing. So they were selected, and so they went off, about 700 of them, and with them went 90% of my trained nursing orderlies. Captain Reid was the only Canadian officer who went to Japan, and he went with his draft. I was now reduced to a skeleton medical staff, with three medical officers and a few orderlies who remained. But the number of sick had not been reduced. However, the situation was relieved to some extent by combining the Canadian Hospital with the British Hospital. We now had only a few Canadian wards to look after. I was relieved of most of the burden of administrative work.

Throughout 1943 the diet level was maintained somewhere between 2,500 and 3,000 calories. The level of health rose slowly, but surely. The symptoms of avitaminosis were less obvious, although we were constantly aware that the problem was lurking just beneath the surface. There were no deaths in February, and after this time a death was a rarity. Diphtheria disappeared from the scene in March. A second draft left for Japan in August, and a third in December. At the end of the year, the Canadian population in camp was about 450, of whom 150 were in hospital. Most of the hospital cases were suffering with the nutritional diseases of pellagra and beriberi, or more frequently a mixture of both. Cord changes which produced ataxia, sensory disturbances, and changes in peripheral nerves resulting in numbness, paralysis, deafness and blindness, formed an all too common clinical picture. In addition we battled the ubiquitous dysentery and malaria. But our contact men in the black market were still doing business, and we received a steady trickle of drugs through them. We felt that we were coping with the situation as adequately as could be expected.

In the spring of 1944 our supply of bulk Red Cross Food finally gave out. The dietary level dropped to between 2,000 and 2,500 calories, and was only maintained at this level by the efforts of the local Red Cross representative, who sent in small supplies of local foodstuffs. This drop

was quickly mirrored in the state of health in camp. Avitaminosis again became obvious. In May, I had twelve cases of avitaminosis who were completely bedridden. Three of them had bulbar palsies. In August, we were again saved by the Red Cross. We each received three and two-thirds individual food parcels from the Canadian Red Cross, but the most important part of this shipment was the splendid medical stores which were sent. Whoever designed those medical packing cases must have had our needs in mind. For the first time, I now had an ample supply of vitamin products with which to attack our problem. Until you have done without, you can have no idea of the pleasure there is in being able to treat a patient along rational lines. I and my colleagues revelled in our opportunity. But we had learned a bitter lesson. We were able to use vitamines prophylactically, and to use a sufficient amount in treatment, but we did not feel that we could afford to be lavish. In spite of the caution we used, this supply began to run short in January, 1945.

In March, 1945, we received one and one-third individual food parcels from the Red Cross, and with this a sufficient number of drugs from the American Red Cross to replenish our supply for treatment, although prophylactic use had to be curtailed. In May we learned of the collapse of Germany, and began to hope for release in, perhaps, six months time. The unexpected and sudden collapse of Japan in August found us with a reasonable supply of drugs on hand. Only after that time did we feel justified in dispensing our precious drugs with a lavish hand.

In this article I have stressed the medical point of view. That is understandable in consideration of my own interests and the interests of my readers. But you must understand that our life was not altogether grim, at least not as grim as it was from the point of view of the sick. We had our lighter and happier moments, in which we forgot our misery and lived once more like civilized humans. I remember the theatre which we built in Shamshuipo. I had no part in the spectacles that were presented there, but I was always to be found as one of the very appreciative audience. As long as we had electric light, these stage presentations were, to my untutored mind, extremely good. And even when we had no more light, those interested made tremendous efforts to "take us out of camp for

awhile." I remember, too, our various attempts at a news service. We received a newspaper printed in English and published by the Japanese. It was highly propagandistic, of course, and presented what was to our minds a pretty lop-sided picture of world events. We tried smuggling in radios at one time and another, but when these were discovered the resulting penalties were too stiff for our liking. So we gave that up. Then we began smuggling in a colloquial Chinese paper. We had several volunteers in camp who could translate it adequately. These translations were passed from hand to hand, with what was supposed to be the utmost secrecy. But it was strange how one could always hear the "top secret" news item discussed in a loud voice by a group in the latrine or shower room. I suppose it was fun, just taking a chance. I remember most of all, the friends made. There was lots of time in which to get to know people. And there were lots of people who were worth knowing, people from many strange corners of the earth who had been caught in Hong Kong along with the rest of us. When one rubs shoulders with people like that, one loses some of one's corners, and learns what a cosmopolite really is.

Since I have come home, I have been asked a good many times for my general impression of the whole experience. It is a difficult question to answer. I think that the thing we resented most was not the bad food, or the cold, or the domineering attitude of the Japanese, although all these were unpleasant. But what bothered most of us more than anything else was the over-crowding, the complete lack of privacy. Until this is denied you, you can have no idea of what a blessing it is to be able to be alone. In camp we lived cheek by jowl with the same little group year after year. And under such circumstances the dearest friend can become hateful.

On the whole, I do not regret the experience. I think that I learned a lot. I learned what people are like when the cultural surface is rubbed off by the stress of circumstances. I found that some humans are among the nastiest of the Lord's creatures, but I also learned that some are among the finest. I think that perhaps I learned the meaning of tolerance, and that in itself is an education. But I do not wish to repeat the experiment. It is much more pleasant in retrospect than it was in reality.



## Post Cholecystectomy Syndrome

S. S. Peikoff, M.D., F.R.C.S. (Ed.)

Gall bladder disease is so common and yet the end results in cholecystectomy in the past have frequently been so disappointing that a special term has been coined to describe the symptoms which follow gall bladder operations—namely, The Post-Cholecystectomy Syndrome. These cases are common not only in general practice but until quite recently were also prevalent in well recognized clinics all over the world. Follow up investigations at Barnes Hospital<sup>1</sup> showed that about 35% of patients with a pathologic but non-calculus gall bladder and presenting merely symptoms of dyspepsia remained unrelieved following removal of the gall bladder. They warn against promiscuous surgery in stoneless gall bladder when pain is not a symptom. There is no question that surgery is of doubtful value and may do actual harm in such cases.

To illustrate a concrete case: a patient, age 24, entirely well until a few years ago, was seized with a severe attack of upper abdominal pain associated with nausea and vomiting and was diagnosed as biliary colic. A cholecystectomy was done a year and a half ago. A stoneless gall bladder was removed; pathological diagnosis—chronic cholecystitis. The patient was completely relieved of all symptoms for five months but at the end of that period, however, she began to suffer periodic recurrences of the same type of dyspepsia and colicky pain—probably worse. In fact her surgeon after several post-operative visits asked her not to return to his office if she could not control her belching in the presence of his prospective gall bladder patients.

These universally poor results prompted extensive investigation of this syndrome in the hope of solving it or at least improving it. It has been found that there is more than one cause or factor involved.

### What are the Causes?

#### 1. Failure of diagnosis.

Persistence of pre-operative symptoms may often be traced to wrong diagnosis. We are so prone to forget that gall bladder disease is so very common. Crump of Vienna in 1,000 routine autopsies found that gall stones were present in 33% and disease of the gall bladder in about 50%. This tallies roughly with the figures of Mentzer of Mayo Clinic. In a series of 612 routine autopsies he found disease of the gall bladder in 65% of cases. And how often do we find a gall bladder full of stones in our own post-mortems when a patient dies of, say, heart disease or malignancy with a previous negative gall bladder history.

If such a gall bladder is removed without proper investigation but simply on a history of indefinite dyspepsia or attacks of abdominal distress or on the strength of a gall bladder which does not visualize on X-ray, one may find later to his dismay that the actual symptoms were produced by duodenal or gastric ulcer, appendicitis, renal conditions or even involvement of nerve roots as in tabes dorsalis or functional neurosis. The history of jaundice—intermittent or recurring—may be taken for stones in the common bile duct when it may actually be a case of pernicious anaemia, hemolytic jaundice or an intra-hepatic lesion.

The paradox is this: if a patient presents himself with stones in the gall bladder **without** symptoms—the recent trend is to remove it in order to obviate complications, the nature of which I shall attempt to point out later. But if he presents himself with stones in the gall bladder **with** symptoms one must then make sure that the symptoms arise from the gall bladder and not from another source. It is, therefore, imperative to take a thorough history of the nature of the dyspepsia, colic, or jaundice as well as to perform thorough radiological and laboratory investigation of the gastro-intestinal tract if such errors are to be eliminated.

#### 2. Failure to explore the common bile duct.

This is said to be responsible for 35 to 50% of recurrence of symptoms. Walters of the Mayo Clinic found stones in the common bile duct in 15% of the cases which had stones in the gall bladder, while Lahey of Boston, claims an 18% incidence. One must bear in mind that stones may be present in the common bile duct without colic or jaundice. One would not dare explore every common bile duct. This is not only uncalled for but would materially increase the mortality rate. Opening of the common bile duct for exploration should be limited to carefully selected cases and for these well established indications:

1. History of colic or jaundice.
2. Fine sand in the gall bladder.
3. Dilated common bile duct.
4. Palpable stone.
5. Hard pancreas.

Exploration of the common bile duct is a safe procedure during the primary operation, for the patient is then in good surgical condition, there are no adhesions and the gall bladder acts as a guide and reactor. Compare this with a secondary operation when the patient returns with a stone impacted at the sphincter of Oddi. He is jaundiced, liver reserve is poor, any amount of adhesions may be present, more than likely he

has Charcot's fever superimposed; then you begin to appreciate why the mortality rate pyramids.

There is, of course, the possibility of:

1. Overlooking a stone at the first operation no matter how good a surgeon one may be.

2. Or a stone may inadvertently be squeezed from the gall bladder into the common bile duct during the operation.

3. A hepatic stone may descend into the common bile duct after operation.

These three factors as causes for recurring symptoms are unavoidable but if a sincere effort is made to explore the common bile duct under the established indications recurrences will be definitely reduced.

### 3. Failure of accommodation.

This is an extremely important physiological reason and explains a great percentage of recurrences in operation on non-calculus gall bladder.

To appreciate this I would like briefly to review the physiology of bile circulation.

Bile pours out of the liver at the rate of about 500 cc. to 800 cc. a day. It passes down the common bile duct to the duodenum and here meets the sphincter of Oddi in spasm; which is controlled by the autonomic nervous system and opens only during meals. But between meals the bile is dammed back into the gall bladder where it is concentrated ten times and stored. 450 cc. of the bile is returned to the circulation by the absorption of water and inorganic salts; only the remaining 50 cc. of concentrated bile is available for delivery into the duodenum when the sphincter relaxes as it does in response to a stimulus such as, cholecystokinin, cream, yolk of egg, Mag. Sulphate, or olive oil. Bile in health, therefore, has a double exit. 450 cc. are returned to the circulation, only 50 cc. pass into the duodenum; thus is the strain on the biliary system relieved.

The removal of an apparently normal, or soft walled gall bladder deprives the liver of a reservoir in which to store bile. The surplus must be accommodated in the common bile ducts until these are dilated to the extreme. This increase in the intraductal pressure and the sudden distension in the smooth muscle walls result in the colicky pain and vague indigestion which follow cholecystectomy. It may take the common bile duct many months to assume the function of this increased bile traffic on its own. On the other hand if the gall bladder becomes diseased slowly over a period of years it forces the common bile duct to accommodate itself gradually to the new intraductal pressure, so that by the time the gall bladder has thick diseased walls and is functionless, the common bile duct is now in a position to look after the excess bile circulation. At this stage the removal of the gall bladder would remove the focus of infection without

adding the burden of accommodation.

The International Congress on Biliary Lithiasis in 1932, after extensive experiments and investigation point out the danger of "functional" cholecystectomy (which means the removal of a normal gall bladder) and have found in addition to the accommodation changes:

1. A progressive destruction of the epithelium of the large liver ducts; degeneration of elastic tissue and replacement with fibrous tissue.

2. Greater susceptibility to infection.

3. Reduction of one-third of pancreatic secretion.

4. Marked interference with normal digestion.

### 4. Residual Disease.

We are often prone to forget that chronic cholecystitis is not a local disease. Judd<sup>2</sup> states "that cholecystitis is not a disease of the gall bladder alone, but affects the whole biliary tree giving rise to profound pathologic and functional changes in the liver and pancreas and is also capable of affecting remote structures and functions. The gall bladder may be the "mischief maker" of the biliary system but failures following its removal are chiefly due to cholangitis, hepatitis and pancreatitis."

(a) Cholangitis of varying degree is nearly always present as evidenced by thickening and oedema and infection in the common bile duct.

(b) Hepatitis. Judd, while operating on the gall bladder, removed small sections of the liver at some distance from the gall bladder, sometimes from the right lobe and sometimes from the left lobe. He obtained positive bacterial cultures from 27% of these pieces of liver; Graham reported that in 87% of his cases of disease of the gall bladder hepatic damage was associated.

(c) Long continued presence of cholecystitis produces a reflex "hair trigger" mechanism (Roscoe Graham<sup>3</sup>) in the pylorus which can be shown on X-ray by evidence of intense pylorospasm.

These conditions of cholangitis, hepatitis and pylorospasm persist for some time after the gall bladder has been removed. The post-operative care is just as important as the operation. The patient must be watched until the residual condition is cleared up. Diet is important. Meals should be light, small and frequent. Then the flow of bile is constant rather than intermittent. Antispasmodics and sedatives are valuable in overcoming the discomforts common at this stage.

(d) Acute interstitial pancreatitis is not an uncommon residual complication. This is an entirely different condition from fulminating pancreatic necrosis. It is due to transient attack of inflammation of, or obstruction in, the head of the pancreas which lasts anywhere from a few hours to one or two days. The blood amylase<sup>4</sup> normally 80 to 150 units may rise to

to 4,000 within 24 hours to 48 hours of the attack. Often the icterus index is also slightly elevated during the attacks and drops with the fall of the blood amylase which indicates that it may be part of the same process. This is explained by the fact that the common duct normally passes through the head of the pancreas which when swollen compresses it and produces transient biliary obstruction. A rise of the blood amylase within 24 to 36 hours of the attack and a drop to within normal limits after 48 hours is conclusive evidence of interstitial pancreatitis.

### 5. Biliary Dyskinesia.

This condition was first recognized by Krukenberg in 1903 when he pointed out that gall bladder colic can occur without stones in the gall bladder or common bile duct and without evidence of pathologic changes at autopsy or in the operating room. Whether this is due to spasm of the sphincter or neuro-muscular inco-ordination, the fact remains that the sphincter fails to relax. This results in distension of the ducts and raised intraductal pressure which mimicks the symptoms of biliary colic.

Ivy<sup>5</sup> in experiments on dogs has shown that the gall bladder contracts with a force of 30 cm. of bile pressure (same as the secretory pressure of bile) while the common bile duct can contract against a pressure of 80 cm. of bile pressure and therefore spasm of sphincter may cause sufficient pressure to block the flow of bile from the gall bladder or liver.

McGowan<sup>6</sup> in carrying out experiments on humans with T-tube drains increased the intraductal pressure by administration of morphine, resulting in severe right upper quadrant pain similar to gall stone colic while Amyl Nitrite completely reduced the pressure with absolute relief of pain. A few whiffs almost at once brought the pressure to zero.

Drugs are often dramatically effective in aborting an attack. However, they must be used soon after the onset of attack. If the patient has had pain for several hours these remedies are usually ineffective. It is of some practical importance to remember that nitro-glycerine or Amyl Nitrite is more effective in relieving gall stone colic than is morphine. Morphine contracts the sphincter and increases the intraductal pressure causing pain, and in order to be effective must be given in sufficiently heavy doses to dull the cerebral centres.

It is almost impossible to diagnose biliary dyskinesia pre-operatively. The usual method of diagnosis is this. A surgeon operating for gall stone colic who on exploration is surprised to find a normal looking gall bladder, may leave the gall bladder alone and examine the duodenum, stomach and pancreas, finally end up by removing

the appendix or he may remove the gall bladder believing it to be of the strawberry type. The patient gets complete relief for five to six months since dissection in the gall bladder region is a virtual sympathectomy. But after that time symptoms recur—the same old dyspepsia and colic.

In the early stages of biliary dyskinesia treatment should be medical, in the form of frequent feedings and drugs. Sooner or later these functional conditions result in an organic stricture and require operative interference. I have been fortunate in recognizing a case of dyskinesia simply because the symptoms were of long standing. I am quite satisfied that had the patient applied for relief some eight or ten years earlier, I would have fallen into the same pitfalls as the doctors who had treated him.

### History

Mr. D. G., Pharmacist, age 25, admitted to St. Boniface Hospital, July 2, 1941.

### Entrance Complaint

- (1) Indigestion and belching of gas for ten years.
- (2) Yellowish conjunctiva for two years.

### Past Illnesses

- (1) Measles.
- (2) Acute sinusitis, 1935.
- (3) Gastric neurosis, diagnosed as a result of history of belching and indigestion in 1934.
- (4) Floating kidney, following cystoscopy and pyelogram for pain in the right upper quadrant in 1939.

Being a druggist he had used every variety of powders from Amphogel to McLean's to relieve his belching. Within the past six months his friends noticed that his sclera were yellowish. Apart from that his appetite was good, no loss of weight, no itchiness, stools normal, urine normal. While working in the drug store he noticed that soda water in the store had a metallic taste which led him to believe that he was suffering from lead poisoning.

### Investigation Revealed

- (1) VanDenBergh, delayed direct.
- (2) Icterus index, 30; and repeated daily it fluctuated 30, 20, 15, 30, and so on.
- (3) Fragility test, normal.
- (4) Free bleeding, 2 min.
- (5) Clotting, 2 min.
- (6) Blood count; R.B.C. 5,680,000, Hb. 109%.
- (7) X-ray, gall bladder examination by the Graham method does not visualize, indicating impaired gall bladder function. No shadows are seen to suggest calculi.
- (8) Basophilic stippling to rule out lead colic was done, and was negative.

From the history and laboratory findings I felt that he had slow intermittent obstruction at the

Ampulla of Vater which could be accounted for by an adenoma. A stone was a possibility but not favored on account of the complete absence of pain. His age and general appearance precluded gall bladder disease. A normal blood picture ruled out hemolytic jaundice. Exploration was indicated.

#### Operative Findings

At operation the gall bladder appeared normal, thin walled greenish and somewhat distended. The common bile duct was dilated, thin walled and greenish. On opening clear bile exuded. No stones or gravel were found. A probe could not be passed into the duodenum after repeated attempts.

A catheter was introduced, saline injected but returned completely. A trans-duodenal incision was made into the second part of the duodenum and the ampulla was found to be almost completely stenosed. A probe inserted into the opening in the common bile duct was directed up to the ampulla and an incision was made over it at this point to enlarge the opening and the edges of the incision were sewed to the edges of the posterior wall of the duodenum. A T-tube was inserted for a period of three weeks. It is now four years since the operation and the patient has been completely free of his indigestion and his gastric distress.

There is no question in my mind that this man was suffering from dyskinesia over a period of ten to fifteen years which ended finally with organic stricture in the ampulla. But one can readily appreciate the difficulty in arriving at a diagnosis in this case until the actual stricture became apparent.

#### 6. Technique of the Operation:

Technical dexterity of the highest order is essential if pitfalls are to be avoided.

1. H. K. Gray<sup>7</sup> has recently described the "Reformed Gall Bladder" which results from leaving a long piece of cystic duct, an inch or more, when removing the gall bladder. The duct is infected, dilated and contains debris which moulds into a stone and becomes a virtual miniature gall bladder with the same pathological set-up as in the original gall bladder.

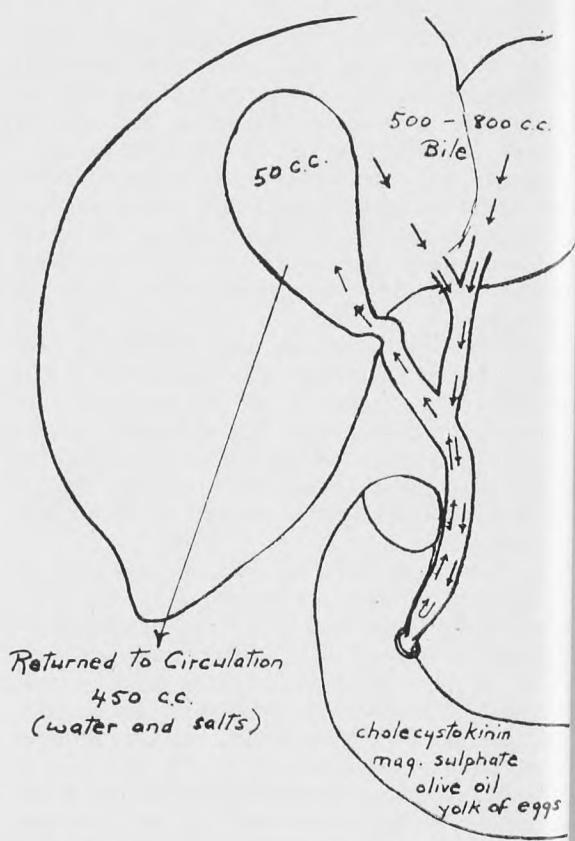
2. On the other hand, removing too much of the cystic duct may result in a partial stricture of the common bile duct or angulation. Injury to the major ducts is a constant hazard and varies from narrowing by ligature or excision of a large portion of the duct. It is essential in each case to expose and identify the cystic duct and its relation to the common bile duct before clamps or ligature is applied.

3. Failure to peritonize the gall bladder fossa may result in obstruction or angulation of the

duodenum or pylorus in varying degrees with its resultant evil effects.

#### Conclusion

So far I have been considering the causes of the unsatisfactory results which may follow cholecystectomy. Under what conditions, then, can one expect uniformly good results? It is the present day trend, that calculous gall bladder should always be removed. For this dogmatic statement there are excellent and compelling reasons. The presence of gall stones always means cholecystitis



Cholecystitis is a continuous steadily progressive process which is never self-limited. Heyd<sup>8</sup> says that stones are never found in the common bile duct if the gall bladder is normal and if found are the result of late gall bladder disease and therefore, if you interrupt the disease early you stop the progress and complications. Gall stones occur in 60% of cases of biliary tract cancer and in 95% of cases of acute cholecystitis. Disease of the gall bladder has also been found to be responsible for heart symptoms, asthma, rheumatoid arthritis, acting as a focus of infection.

Because of these facts it is obvious that gall stones are a hazard and are dangerous in many ways. They should, therefore, be removed as early as possible. Thus is the immediate problem.

made less complex, danger of serious sequelae lessened, and the best therapeutic results secured.

Surgical diseases of the gall bladder fall into two extreme types with a wide range of intermediate types between them. At one extreme is the calculous type in which there is a history of repeated attacks of gall stone colic. Here, surgical results are usually excellent. At the other extreme is the patient with indefinite indigestion and radiographic evidence of non-functioning gall bladder. These results are more often bad than good. No cut-and-dried rules can be given for routine care. Each patient must be studied as an individual. Every surgeon must rely on his own experience and failures. But in every case, regardless of the type, these factors are

of paramount importance: good judgment, technical dexterity and thorough post-operative care.

#### Bibliography

1. Graham, E. A. and McKey, W. A.: Consideration of the Stoneless Gall Bladder. *J.A.M.A.*, 103: 1497, 1934.
2. Judd, E. S., Crisp, N. W. and Waldron, G. W.: Cholecystitis, Cholelithiasis, Choledocholithiasis, and Associated Diseases of the Liver. Christopher's Textbook of Surgery by American Authors, W. B. Saunders Co., Philadelphia and London, 1936.
3. Graham, Roscoe R.: Surgical Therapy in Gall Bladder Disease. *C.M.A.J.*, 1934, P. 119.
4. Elman, Robert: Acute Interstitial Pancreatitis. *Surg., Gyn., Obst.*, 57: 291-309 (Sept.), 1933.
5. Ivy, A. C.: Physiology of G. B. *Physiology Rev.*, 14: 1-102, 1934.
6. McGowan, J. B., Butsch, W. L., and Walters: Pressure in C.B.D. of man: Its relation to pain Following Cholecystectomy. *J.A.M.A.*, 106, 2227.
7. Gray, H. K.: Biliary Dyskinesia: The Role played by a Remnant of the Cystic Duct. *Proc. Staff Meeting, Mayo Clinic*, 19: 164-168 (March 12), 1944.
8. Heyd, C. G.: Complications of G. B. Surgery. *Annals of Surgery* 105, 1-8, Jan., 1937.

## Case Report

### A Case of Anophthalmos

**S. S. Toni, M.D., Altona, Man.**

By anophthalmos is meant congenital absence of the eye-balls. It is a rare abnormality. In 1916 Wright in reporting a case mentions that he had found four cases in the literature between 1912 and 1916. During the same period 19 cases of microphthalmos had been reported. In this condition the size of the eye-ball is reduced from just below normal to just above anophthalmos. Including Wright's case the literature from 1916 contains 13 cases of anophthalmos. Both sexes are affected equally. In the 13 cases, 7 were in males and 6 in females. In ten of the thirteen cases the condition was bilateral. It may affect only one child in a family or several children. Almost without exception the parents were healthy and had normal eyes and vision. Most of the children had no other defect.

The description of one case applies to all. The lids and eyelashes are normally formed but the lids are small and kept closed. The palpebral fissure is about a quarter of an inch long. The orbits are empty and lined with conjunctiva. Sometimes a small button of tissue is found at the posterior pole of the orbital cavity and this may represent the eye. The defect is developmental. Either there is no budding out of the primary optic vesicle or the vesicle buds but does not develop. Recordon and Griffiths report a case with autopsy. They found no trace of optic chiasma or tracts. A small teratoma was revealed between the corpora mamillaria. The optic canals were not patent and very small optic arteries ended against the bony wall. In the orbital fat were found the external ocular muscles. No trace of eye-tissue was found.

Sorsby quotes from an unpublished manuscript written in 1813 by James Briggs. This is prob-

ably the first instance of its description. Briggs described the condition as it occurred in four of a family of seven children. The second, third and sixth children were deficient in both eyes. The seventh was deficient in one eye while the other was malformed. From Briggs' description it is apparent that the youngest child had anophthalmos of the one eye and microphthalmos of the other.

McMillan reported two cases of unilateral anophthalmos in a family of four. The other two children had evidence of maldevelopment in three of the four eyes.

The following is the history of a case recently seen by me: The patient was a female, the fourth child in the family and was born normally after a normal gestation. The birth weight was 7 lbs. 5 ozs. The child was physically normal except for the eyes. When attempt was made to instill drops the eyes were found to be absent. The palpebral fissure measured 8 m.m. and a probe entered the socket to a distance of 1.5 c.m. The bony orbit was about two-thirds the normal size. The eyelids and eyelashes were present. Examination procedures led to the secretion of tears. The three siblings are normal. The mother is a healthy woman of 30 with a good family history. The father is a physically normal man of 31. He and his four siblings were all born prematurely. Physical and mental abnormalities (but, apparently, no local eye changes) were present in many of the father's forebears as far back as the third generation. The child has thrived normally since its birth.

#### References

Sorsby, A.: *Brit. J. Ophthal.*, 18: 469.  
 McMillan, L.: *Brit. J. Ophthal.*, 5: 121.  
 Wright, H. R.: *Ophthal. Rec.*, 25: 620.

## Flat Foot

Henry Funk, B.A., M.D., Ch.M.

Demonstrator in Orthopaedics, University of Manitoba. Orthopaedic Consultant to Ninette and St. Boniface Sanatoria.

The term "Flat-foot" or "Pronated Foot" is used to describe a condition where the longitudinal arch becomes abnormally flattened. The foot assumes this position in part, at least, by the motion of pronation, a movement similar to the act of pronating the forearm. To accomplish this motion the subtaloid joint must come into play and in so doing the calcaneous is rotated laterally under the talus.

Flat-foot condition may be associated with a variable degree of metatarsalgia but it may exist alone. Further, flat foot may be entirely asymptomatic. There are, however, many variations and degrees both in symptoms and in appearance on inspection.

As stated in the previous article, the pain is caused, not by the abnormal stress on the ligaments and muscles, but by the abnormal ligamentous tension on the periosteum. It is conceivable that a foot going through the process of becoming flattened may, from being very painful, become asymptomatic. That is to say, when the flattening reaches such a degree that the bones of the longitudinal arch become weight bearing, there is no further tension on the ligaments and consequently there is no pain.

Normally the structure of the foot provides for the weight to fall on three points, the calcaneal tuberosity, the head of the fifth metatarsal and the head of the first metatarsal. It is in this order that weight falls during walking and it does so in a rolling fashion. In the standing position, with a good posture, the weight falls mainly across the metatarsal arch; thus the individual stands on his muscles rather than on his os calcii and ligaments.

Poor posture shifts the weight-bearing area from its normal position to the heels. The torso inclines slightly backwards, the centre of weight-bearing falls through the heels, the lumbar lordosis is increased and the pelvis is tilted downwards in front. (Figure 1.) This stance does not utilize the muscles supporting the feet, namely, the tibials. When these muscles cease to function adequately the plantar ligaments assume the main stress and in due course become stretched abnormally thus causing foot strain and ultimately "flat foot". This, then, is one of the results of bad posture. With proper posture, the stomach being pulled in and the chin back, the lumbar spine flattens, the pelvis is tilted upwards in front and the torso inclines more forward, causing the centre of weight-bearing to fall nearer the front of the ankle. In this position

weight is borne on the forepart of the foot—the tibialis anterior, tibialis posterior and the flexor hallucis longus assuming the strain. The muscles being used more actively do not tire and the foot has better support.

Apart from posture many factors tend to produce "flat foot" and foot strain. Most writers place heredity at the top of the list and this is probably a prime factor in the flat foot of children. Any condition which weakens the tibial muscles or which causes their paralysis, is most important. Diphtheria may be such a cause. Prolonged bed confinement, whether after operation or due to debilitating disease, is an important cause of

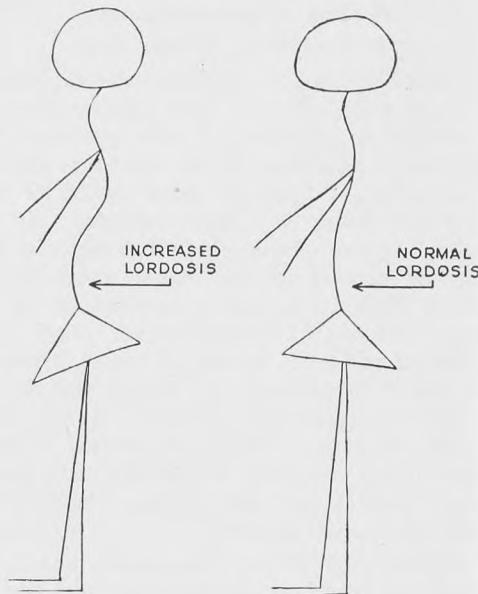


Fig. 1

a. Incorrect Posture    b. Correct Posture

weakness. Accessory scaphoid, the result of a separate centre of ossification at the medial end of the navicular leads to an abnormally large navicular and a tendency towards flat foot. The tibialis posterior tendon being inserted at the point upsets the mechanics of the foot, for in the place of elevating the medial side it tends to pull it downwards. Abnormal strain as a result of excessive walking or standing may overstrain the muscle reserve and so give rise to pain in the flat feet. Rheumatoid arthritis may lead to marked deformity. Various types of injuries such as falling on one's feet from a considerable height or having a heavy weight dropped on the dorsum of the foot, to mention only two, may break the foot.

the supporting structures. These are a few of the many factors which cause flat-foot.

#### Treatment

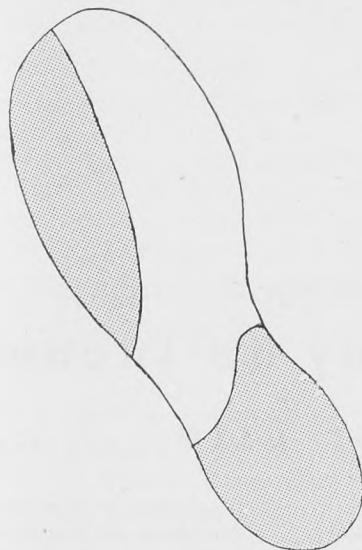
It bears repetition that not in every case of flat or pronated foot are symptoms present, therefore many cases require no treatment. There is, however, one variety of asymptomatic flat-foot which demands treatment. In children there may be a painless pronation so severe that even the shoe becomes misshapen. These children "toe out" excessively and this often causes the parents considerable concern. Apart altogether from satisfying the parents this condition should be treated; otherwise it will persist throughout the rest of the patient's life.

One can expect little co-operation from a little tot who has only just learned to walk, exercises are thus out of the question and one must resort to other means. Such children should not be

slippers is to be condemned and only well-fitting shoes should be worn. This protects, at least to some degree, the weakened structures.

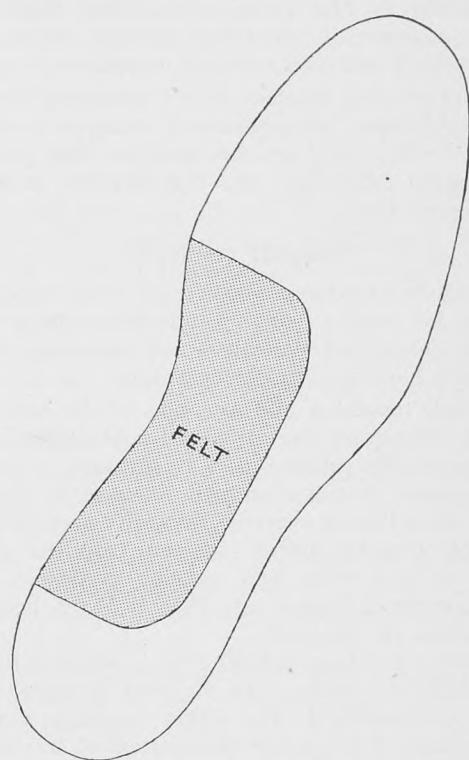
The use of insoles elevated along the medial border (depending on the degree of flat-foot) may relieve symptoms very rapidly. Insoles can be purchased in almost all sizes, women's and men's. To the under surface of the insole a shaped piece of piano felt is glued. This felt is about one-quarter inch in thickness, and is cut to the desired shape in a wedge fashion. The felt should extend from just behind the first metatarsal head to the middle of the heel as in Figure 3. The unsatisfactory part of such an insole is that the felt is not sufficiently elastic and soon becomes compressed so that the amount of lift is altered and may soon become inadequate.

In extreme cases metal plates are definitely useful. These are modelled on a plaster mold of the foot held in a corrected position. The



**Fig. 2. Thomas heel. Lateral side of sole elevated**  
allowed to walk barefoot or in bedroom or house slippers. Their shoes must be modified. The Thomas heel (Figure 2) raised from one-eighth inch to one-quarter inch on the medial side inverts the calcaneous and also provides a support under the posterior part of the medial border of the foot by virtue of its anterior projection. If the lateral side of the sole is also elevated from one-eighth inch to one-quarter inch the forepart of the foot flattens and the weight is thrown more on the head of the first metatarsal. Then, when the child becomes old enough to co-operate, exercises should be instituted.

Where a patient has been confined to bed for a prolonged period he should not be permitted to walk without adequate support for his feet. For this reason walking barefoot or in bedroom



**Fig. 3. Insole with felt pad insert.**

so-called "Whitman plate" is constructed out of a malleable metal and can be changed from one pair of shoes to another—excepting high or spike-heeled shoes. There is considerable flexibility in such plates and when correctly fitted they do much towards relieving the patient's symptoms.

#### Exercises

To strengthen weakened muscles or to teach an individual to use his muscles correctly con-

stitutes the active part of the treatment of flat foot. Where no anatomical deformity or rigidity exists, the muscles can usually be trained to correct the condition provided the patient is willing to do his part. Such exercises require little time but much perseverance. Here are a few.

Standing barefoot on the outer edge of the foot and toeing in moderately, the patient rises on his toes and then resumes the first position. This is repeated and the number of repetitions increased daily. The toes are strongly flexed over a doorstop. This develops the intrinsic muscles of the feet. The patient walks back and forth on an eight foot long, six inch high isosceles triangle. This develops the supporting muscles of the feet. While seated in one chair and resting the feet on another, the sole of one foot is placed on the dorsum of the other, then dorsiflexion of the under foot is attempted during resistance by the upper one. After doing this for a number of times the position of the feet is reversed and the exercises continued.

While going farefoot is not advisable for flat footed children the pleasure of doing so on a soft lawn or the sand at the beaches does not act as does a hard floor and the pleasure need not be denied them.

#### Surgical Treatment

Only in extreme cases or where other measures afford no relief is surgery indicated. Many types of operations are described and seemingly every surgeon has his own pet operation.

Since inversion and eversion of the foot take place mainly at the subtaloid articulation it is reasonable to suppose that if eversion is limited the degree of pronation will likewise be limited. This limitation of eversion is readily accomplished by detaching the deltoid ligament from the medial side of the tibia and medial malleolus, and reattaching it higher up. This is the Schoolfield operation for flat foot.

Where the longitudinal arch is abnormally flat the Miller operation can be used to supplement that of Schoolfield. The Miller operation consists of raising a rectangular osteoperiosteal fascial flap over the navicular, the first cuneiform and the base of the first metatarsal. The cartilage is excised from the intervening joints and the flap offset so that bone on the flap lies across these joints. It is then sutured into place. A plaster cast is next applied, the arch molded into its corrected position and the cast retained until union is firm.

#### Shoes

Many people choose their shoes by looks and disregard the most important matters of con-

struction and accuracy of fit. Appearance is all right provided that the shoe has the criteria necessary for comfort and adequate support. These criteria are:

1. It should be built on a straight last.
2. There should be approximately three quarter inch space between the end of the big toe and the end of the shoe.
3. The shoe should fit snugly along the medial border from the first metatarsal head to the heel.
4. The heel should be—as in a walking oxford—one and one-quarter inch to one and one-half inches in height. This provides for a wide base and eliminates a multitude of disturbances attributable to high or spike heels. For evening dress high-heeled shoes need not be forbidden but these should not be worn for walking or at work.

## Buy an Income for Life . . . . .

**Security  
at Low  
Cost . . .**

**4%**

**Compound  
Interest**

**Dominion Government Annuities** are the soundest investment you can make. The income is greater than can be obtained from any other investment offering the same security. Your money accumulates at 4% compound interest. Your investment is backed by all the resources of Canada. Every dollar you invest goes into your own annuity. The Government absorbs all cost of administration.

For particulars write:

**Mrs. E. L. Taylor, Representative**

**CANADIAN GOVERNMENT ANNUITIES**

617 Royal Bank Building, Winnipeg, Man.

## Clinical Luncheon Reports

### Winnipeg General Hospital

#### Duodenal Spasm Associated with Pancreatic Cyst

Dr. K. Trueman

The patient was a girl of fourteen years, admitted to Hospital in September for investigation of recurrent severe right upper quadrant pain, with vomiting and weight loss. She had had her first attack two years before and treatment at that time was appendectomy, with recurrence of symptoms in two months. Since then she suffered repeated attacks every one or two months and more recently the pain had been almost continuous. It was localized to the right of the midline below the costal margin, radiated through to the back and was associated with vomiting of bile-stained material. Symptoms were aggravated by food. There was a tenderness in the R. U. Q. A tentative diagnosis of Cholecystitis with cholelithiasis was made.

#### Investigation

- (1) Cholecystogram showed normal functioning gall bladder.
- (2) Barium meal — no pathology in stomach, "spastic area in second half of duodenum, possibly duodenitis."
- (3) Intravenous pyelogram—no evident disease of right kidney which might cause pressure on duodenum.
- (4) Gastric analysis—free HCl present in normal amounts.

#### Course in Hospital

Successive attacks of pain with vomiting after meals. No relief when tube passed beyond affected part of duodenum, through which feedings were given. Temporary relief with morphine gr. 1/6 or demerol mgm. 100. Placebos ineffective.

October 18th—Operation—Gall Bladder, stomach, oesophageal hiatus, and duodenal cap normal, no thickening of second part of duodenum. There was a cyst in the head of the pancreas from which 1½ ounces of haemorrhagic fluid were aspirated. A drainage tube was left in the cavity of the cyst, passed through the lesser omentum to the surface. Drainage fluid (10-20 ounces a day) was examined by Doctor White and reported to be normal pancreatic juice. A day or so after the tube was removed, pain returned.

November 10th — Second Operation — No cyst was found, second part of duodenum again felt normal. An anterior gastroenterostomy was done with lateral anastomosis. Since this operation there has been no recurrence of pain or vomiting and patient has gained weight.

November 30th — Barium meal — "functioning gastroenterostomy with slightly less spasm of duodenum."

#### Discussion

**Doctor Trueman:** Westfal in 1923 described disturbances in gastro-intestinal motility associated with biliary colic. Mayos in 1938 reported biliary tract symptoms due to duodenal spasm involving the sphincter of Oddi.

**Doctor Trueman:** Such symptoms could be induced, in those susceptible, by an injection of morphine. The cyst in the pancreas may have been responsible for the duodenal spasm with associated spasm of the Sphincter of Oddi and biliary colic—although failure to discover cyst at second operation tends to rule this out. Peptic ulcer is possible although none was demonstrable by X-ray.

**Doctor MacPherson:** Definite spasm in the gastro-intestinal tract is due to two causes: (1) Local irritation, e.g., ulcer, diverticulitis. (2) Reflex, e.g., gall bladder disease or pyloric spasm with high gastric ulcer. Local tenderness over the duodenum suggests local irritation such as regional duodenitis.

**Doctor Medovy:** Recurrence is not unlikely. When patient was first seen neurological imbalance or actual disease in the second part of the duodenum was suspected. Hence, the passage of the tube and use of neurotrasentin was suggested. If symptoms reappear the case should be further investigated from the allergic and psychogenic aspects.

Doctor Ormerod considered neurotrasentin an ineffective gastro-intestinal anti-spasmodic, suggesting that papaverine or demerol were to be preferred.

Dr. Hunter suggested a trial of nitroglycerine to relieve the pain of spasm in such cases.

**Demonstration of Clinical Photography of Diseases of the Eye—Dr. J. T. Cruise.**

A large number of Kodachromes of eye conditions, taken by Mr. William Doern, Chief X-ray technician, were shown.

**A Preliminary Report of the Study of Vitamin B1 Deficiency from the Quantitative Estimation of Urinary Thiamine**

**Prof. A. T. Cameron**

After voiding, the patient is given 5 mgm. of Thiamine Chloride by mouth and the urine passed in the following twenty-four hours is collected. The vitamin in the urine is adsorbed on zeelite and shaken out in a saturated solution of potassium chloride. A special reagent is added, producing a color and this is extracted with xylene.

The final estimation is colorimetric. Results reported in the literature are:

Normal—980-1630 gamma in 24 hours.

Deficient—140-260 gamma in 24 hours  
(gamma=0.001 mgm.).

Comparison was made between results on seven normals (internes), and seven patients suffering from a variety of conditions on a medical flat.

### Results

Normal—Urine volume, 1120-2900 cc. Thiamine excretion, 240-995 gamma.

Patients—Urine volume, 680-1680 cc. Thiamine excretion, 80-540 gamma.

From these results, it is felt that previously reported normals are high, but that an excretion of less than 300 gamma is probably evidence of deficiency. At present, due to the complexity of the procedure, only two a day can be carried out. However, the test will be performed in selected cases on request. Great care must be taken to see that a full twenty-four hour urine specimen is obtained.

### Two Cases of Fatal Pulmonary Embolism Associated with Anaesthesia

Dr. D. M. Huggins

(1) A woman over 60 years fell at home after drinking. She had stood in line over an hour for the liquor the same day. She sustained an impacted fracture of the neck of the femur and three days later, after the normal pre-medication, was given 4 cc. of 2½% Sodium Pentothal and 50% Nitrous Oxide and Oxygen. A further 3 cc. of Pentothal were given during the operative reduction, which was only well underway when breathing became shallow. Respiration was not improved by introduction of intra-tracheal tube, with artificial respiration. Death occurred in spite of direct massage of the heart through the left diaphragm via an abdominal incision, and injection of novacaine directly into the heart muscle.

**Autopsy revealed:** (1) Large varicose veins both legs. (2) Fragile ribs, easily cracked. (3) Narrowed coronary arteries and patches of myocardial fibrosis. (4) Three inch antemortem clot in pulmonary artery.

**Comment:** Venous thrombosis may occur if there is (1) Immobilization of hips and body. (2) Reduced circulation rate. (3) Reflex vagal spasm in veins. (4) Chemical changes in blood.

This patient lay in shock for some hours after the accident. During this period the intima of some veins probably was in contact for some time, and this rubbing together of the walls, liberated a thromboplastic substance with formation of clot probably near a vein valve where eddies exist. This phlebothrombosis was probably loosened

during manipulation of the leg. Fatality may result from complete occlusion of a pulmonary artery, or partial occlusion with spasm and reflex vagal slowing of the heart.

(2) A woman of 45 years experienced a sudden pain in the groin associated with appearance of a tumor (1½" in circumference), at site of pain. Tentative diagnosis was "incarcerated femoral hernia." Under ether anaesthesia, skin over the area was incised and a large saphenous varix containing blood clot revealed. Just as the vein was tied, cyanosis appeared, blood pressure fell markedly, and although respirations remained good for some time, death ensued despite oxygen and artificial respiration.

**Autopsy revealed** several small emboli in the branches of the pulmonary artery.

**Doctor Revell** stressed the importance of a survey of the whole situation before blaming the anaesthetic in such cases. He cited two cases associated with fracture reported in the literature. One occurred eleven, the other fifteen days after fracture, which suggests the unwise delay in treatment. Some authors state that 50% of persons over middle age, if confined to bed will develop thrombosis beginning in the veins of the calf.

Death in such instances is due not to inadequate oxygenation, but rather to reflex effect on the heart. Hence, immediate resuscitation attempts are ineffective. Because the process is irreversible, prophylaxis is of extreme importance. Among such preventive measures are the following:

(1) Avoidance of Fowlers' position or pillow under the knee.

(2) Elevation of the foot of the bed to facilitate venous return.

(3) Routine post-operative carbon dioxide inhalation after anaesthetic and long operation, prolonged rest is necessary. Such hyper-ventilation improves the venous return from the legs.

(4) Get the patient out of bed as soon as possible.

(5) Increase bed exercises; e.g., flex and extend the ankles forcibly every two hours under supervision. Such exercises to be charted.

**Doctor MacCharles** mentioned two practical methods of dealing with thrombosis:

(1) Heparin or dicoumarol to dissolve the clot. A recent report from Mt. Sinai Hospital in Philadelphia suggests that this method is not satisfactory. It is dangerous, control is ineffective at all potential cases would have to be treated.

(2) Ligation of femoral vein on one or both sides in all suspected or possible cases. Blood is shunted through the smaller veins which are adequate for the circulation. This procedure

should be considered in old people requiring surgery and all surgical patients with varicose veins.

**Doctor Aikenhead** advised the intravenous administration of one grain of papaverine with 1/75 gr. of atropine, immediately pulmonary embolism is suspected.

**Doctor Ormerod** suggested the use of amyl-nitrite to relieve reflex spasm and also claimed that if cessation of heart action is due to vagal reflex, at least 1/30 of a gr. of atropine would be necessary to counteract it.

**Doctor Speechly** stressed the importance of a full investigation of all such cases with immediate notification of the coroner.

W. Grant.

## Children's Hospital

### "A Case of Infantile Tetany"

Hospital Case 45-4546, Baby W. K., age 10 weeks, male, admitted to Winnipeg Children's Hospital November 21, 1945, from Selkirk Hospital. Birth date, September 13, 1945; birth weight, 5 lbs. 12 ozs.

This infant had apparently been doing very well until November 16, 1945. The weight on admission, 10 lbs., a gain of 4 lbs. 4 ozs. above birth. There had been some vomiting after the change from breast milk to cow's milk at five weeks, but this had resolved itself. The feeding at the time of admission to hospital was: E.M., 8 ounces; W., 21 ounces; Corn Syrup, 2 tablespoons, 4 ounces in eight feedings. There had been no Cod Liver Oil or Orange Juice up to the time of admission to Selkirk Hospital on November 16.

On this day "out of the blue" the baby had its first convulsion; there were five more similar generalized clonic convulsions associated with a peculiar cry during that day. There was no fever. All went well in the Hospital at Selkirk till November 20th, when the convulsions returned, despite the administration of Calcium, Vitamin D and Phenobarb. It was decided to transfer the baby to the Children's Hospital. During this 24 hour period there were 13 seizures reported.

On admission, November 21st, the irritability, hyperactive reflexes, a positive Chvostek's sign and a partially positive Troussseau's sign corroborated the history so suggestive of Tetany. A blood calcium taken on November 21st was later reported as 4.8 mgm. per 100 cc's. The babe had about six short convulsions on November 21st, and two slight seizures on the following day were recorded. There were no further convulsions during the hospitalization period. The convulsions were considered to be attributable to the hypocalcemia.

Treatment was continued by increasing the Calcium Lactate dosage and increasing the con-

centrated Vitamin D dosage. Calcium therapy was later changed to calcium chloride (a more readily absorbed salt). When the blood calcium on November 26th was still very low, 4.9 mgms. %, the baby was tried on Hytakerol<sup>1</sup>. Meanwhile diarrhoea had developed and this later became severe, necessitating stopping of all medicines after only four days of Hytakerol therapy.

The blood calcium on November 30th was up to 8.5 mgms. %. Further blood calcium estimations during the hospitalization were recorded at 9.2 mgms. % December 4th, 8.9 mgms. % December 12th, and 9.8 mgms. % on December 28. Frequent urine specimens tested for calcium by the Sulkowitch reagent<sup>2</sup> were all positive after November 28.

The diarrhoea became a serious complication. On December 6th, parenteral fluids were ordered, 25 cc's. of sixth Molar Lactate intravenously was followed by 5% glucose in Saline. Improvement was slow and at the time of discharge 2% milk formula with added barley water was being fairly well tolerated. Thiamine Chloride had been administered for a period and cevitamic acid and Drisdol were being administered at discharge.

In the discussion at ward rounds December 13th, the early age was remarked on and the administration of Hytakerol was discussed. The prolonged effect of Hytakerol seemed evident and was felt to be of considerable interest, probably a cumulative effect had occurred. It was pointed out that the infant was a probable candidate for severe rickets and should be started on Vitamin D and adequate calcium just as soon as possible. (Diarrhoea was just under control.) The diagnosis was discussed. It is unusual for infantile tetany to be so prolonged. The hypocalcemia persisting would warrant further observation. Blood Phosphorous estimation would have been of interest at the time of low blood calcium. There was considerable doubt expressed as to the value of Hytakerol—A.T. 10 in raising blood calcium in true infantile tetany.

The baby was discharged December 28th, to return to the Out Patient Department for regulation of Vitamin D dosage and increase of feeding. It is planned to do further blood calcium estimations and X-rays of bone. Parathyroid disease may be present.

### Comment

The recommended treatment of infantile tetany is a rather high initial dose of calcium chloride 45 to 60 grains in a 10% solution (by gavage if necessary) followed by 15 grains every four or six hours for a day, then decreasing to 15 grains two or three times a day, continued for two weeks or longer. Smaller doses may be adequate in some cases. It is bitter and sometimes nauseat-

ing. Calcium lactate should be given in about twice this dosage in a watery solution, and is more easily taken.

It is felt by some that it is better to delay administration of Vitamin D until adequate calcium has been supplied. Vitamin D is the most important part of treatment and should be begun no later than after the first 24 hours of the above scheme of calcium administration. The dosage of Vitamin D is the same as that for curing active rickets.

The use of Sulkowitch reagent is of value in following the course of treatment of infantile tetany. Usually if the blood calcium is approximately normal there is calcium in the urine shown as a white precipitate on addition of equal quantity Sulkowitch reagent to a clear urine. If the blood calcium is quite low, no calcium is present in the urine.

#### References

1. Hytakerol. Winthrop's preparation of dihydrotachysterol (A.T.-10), a photochemical ergosterin derivation simulating some of the actions of parathormone.
2. Management of Hypoparathyroidism with Dihydrotachysterol, Fuller & Albright, J.A.M.A., June 24, 1939. Sulkowitch reagent 2.5 gms., Oxalic Ac. 2.5 gms., Ammonium Oxalate 5 cc's, Glacial Acetic Acid dissolved in distilled water and made up to 150 cc's.
3. Practice of Pediatrics, Brenneman, Vol. 1, Chapter 37.

Murray McLandress, M.D.

#### Hospital Notes

Only those who have belonged to the staff of the Children's Hospital at Christmas can know how great the spirit of goodwill prevails. At no other place is Christmas a greater reality than here.

One of the highlights of this festive season at our Hospital was the annual banquet for all the staff, students, affiliates and internes. The tables were most elegantly arrayed with burning candles and evergreen centrepieces, bowls of fruit, nuts and candy. Throughout the dinner carols and songs composed by the different students' classes were sung most heartily.

Several of the guests of honour, including Dr. G. S. Williams, Dr. Day, Mrs. Fillmore, Dr. Anna Wilson, Miss K. Ruane brought greetings. Everyone looked forward to hearing Mr. Fillmore, whose humorous talk aroused much hearty laughter. Following the banquet, we all gathered to listen to a concert provided by the students, staff and internes.

Santa Claus came in his usual manner, to the strains of "Jingle Bells." Gifts were distributed to all present, and everyone agreed that it was the best Christmas party we've had! We're looking forward to next year!

\* \* \*

On December 15, 1945, Miss C. Barber, clinical supervisor, left for a well earned holiday and

spent Christmas with her family in Saskatchewan for the first time in many years.

\* \* \*

Miss Evelyn Cram, dietitian, left for a vacation to "points south" and then Sunny California, where she plans to stay for some time. On December 27, 1945, a tea was held in her honour. Members of the staff, students and friends were present to wish her well. The presentation of a parting gift brought a most enjoyable afternoon to a close.

\* \* \*

December 27, 1945, at 8.00 p.m., marked the beginning of a chosen career for seven preliminary students. The "candlelight capping ceremony" was held in the reception room of the Nurses' Home. The students' mothers and many friends were present. Dr. G. S. Williams, Superintendent of the Hospital, was chairman. Mrs. Barber, president of the alumnae association of the Children's Hospital, addressed the students on "Student Government."

Refreshments were served, after which Miss Irene Bowman, senior student, rendered a solo. On behalf of the newly capped, Miss E. Fountain presented Miss A. M. Stevenson, their instructor, with a token of appreciation. Those receiving caps were: Misses S. Austin, E. Clark, V. Davis, E. Fountain, V. Manning, F. Nelson, S. Rankin.

Miss A. Motriuk.

**65% of all Industrial Claims are due to DERMATOSES**



2 oz. Prescription Jar  
Tarbonis Cream

For the Treatment  
and Alleviation  
of

**ECZEMA**  
INFANTILE ECZEMA  
SEBORRHEIC  
and  
ECZEMATOID  
DERMATITIS

TARBONIS CREAM  
is available at Drug Stores  
on Prescriptions of the  
Medical Profession

Literature Sent on Request

Distributed by

**Fisher & Burpe**

Limited

WINNIPEG - EDMONTON  
VANCOUVER

## Something Old

### The Canon's Illness

I stayed three months with the Licentiate Sedillo, without complaining of bad nights. At the end of that time he fell sick. The distemper was a fever; and it inflamed the gout. For the first time in his life, which had been long, he called in a physician. Doctor Sangrado was sent for; the Hippocrates of Valladolid. Dame Jacintha was for sending for the lawyer first, and touched that string; but the patient thought it was time enough, and had a little will of his own upon some points. Away I went therefore for Doctor Sangrado; and brought him with me. A tall, withered, wan executioner of the sisters three, who had done all their justice for at least forty years! This learned forerunner of the undertaker had an aspect suited to his office: his words were weighed to a scruple; and his jargon sounded grand in the ears of the uninitiated. His arguments were mathematical demonstrations; and his opinions had the merit of originality.

After studying my master's symptoms, he began with medical solemnity: The question here is, to remedy an obstructed perspiration. Ordinary practitioners, in this case, would follow the old routine of salines, diuretics, volatile salts, sulphur and mercury; but purges and sudorifics are deadly practice. Chemical preparations are edged tools in the hands of the ignorant. My methods are more simple, and more efficacious. What is your usual diet? I live pretty much upon soups, replied the canon, and eat my meat with a good deal of gravy. Soups and gravy! exclaimed the petrified doctor. Upon my word, it is no wonder you are ill. High living is a poisoned bait; a trap set by sensuality, to cut short the days of wretched man. We must have done with pampering our appetites: the more insipid, the more wholesome. The human blood is not a gravy! Why then you must give it such a nourishment as will assimilate with the particles of which it is composed. You drink wine, I warrant you? Yes, said the licentiate, but diluted. Oh! finely diluted, I dare say, rejoined the physician. This is licentiousness with a vengeance! A frightful course of feeding! Why, you ought to have died years ago. How old are you? I am in my sixtieth year, replied the canon. So I thought, quoth the practitioner, a premature old age is always the consequence of intemperance. If you had only drank clear water all your life, and had been contented with plain food, boiled apples for instance, you would not have been a martyr to the gout, and your limbs would have performed their functions with lubricity. But I do not despair of setting you on your legs again, provided you give yourself up to my manage-

ment. The licentiate promised to be upon his good behaviour.

Sangrado then sent me for a surgeon of his own choosing, and took from him six good porringers of blood, by way of a beginning, to remedy this obstinate obstruction. He then said to the surgeon: Master Martin Onez, you will take as much more three hours hence, and to-morrow you will repeat the operation. It is a mere vulgar error, that the blood is of any use in the system; the faster you draw it off the better. A patient has nothing to do but to keep himself quiet; with him, to live is merely not to die; but he has no more occasion for blood than a man in a trance; in both cases, life consists exclusively in pulsation and respiration.

When the doctor had ordered these frequent and copious bleedings, he added a drench of warm water at very short intervals, maintaining that water in sufficient quantities was the grand secret in the *materia medica*. He then took his leave, telling Dame Jacintha and me, with an air of confidence, that he would answer for the patient's life, if his system was fairly pursued. The housekeeper, though protesting secretly against this new practice, bowed to his superior authority. In fact, we set on the kettles in a hurry; and, as the physician had desired us above all things to give him enough, we began with pouring down two or three pints at as many gulps. An hour after we beset him again; then, returning to the attack time after time, we fairly poured a deluge into his poor stomach. The surgeon, on the other hand, taking out the blood as we put in the water, we reduced the old canon to death's door in less than two days.

This venerable ecclesiastic, able to hold it out no longer, as I pledged him in a large glass of his new cordial, said to me in a faint voice—Hold, Gil Blas, do not give me any more, my friend. It is plain death will come when he will come, in spite of water; and, though I have hardly a drop of blood in my veins, I am no better for getting rid of the enemy. The ablest physician in the world can do nothing for us, when our time is expired. Fetch a notary; I will make my will. At these last words, pleasing enough to my fancy, I affected to appear unhappy; and concealing my impatience to be gone: Sir, said I, you are not reduced so low, thank God, but you may yet recover. No, no, interrupted he, my good fellow, it is all over. I feel the gout shifting, and the hand of death is upon me. Make haste, and go where I told you. I saw, sure enough, that he changed every moment; and the case was so urgent, that I ran as fast as I could, leaving him in Dame Jacintha's care, who was more afraid

than myself of his dying without a will. I laid hold of the first notary I could find; Sir, said I, the Licentiate Sedillo, my master, is drawing near his end; he wants to settle his affairs; there is not a moment to be lost. The notary was a dapper little fellow, who loved his joke; and enquired who was our physician. At the name of Doctor

## Book Review

**The Physician's Business.** The practical and economic aspects of medicine. By George D. Wolf, M.D. Second Edition with 58 illustrations. Montreal: J. B. Lippincott Company.

### The Physician's Business

Most doctors are notoriously poor business men, and the young man starting practice has usually much more difficulty with his business than with his professional affairs. To every doctor, then, who lacks a business sense or a business training this book is a god-send. It covers every aspect of medical business from the choice of a specialty to the things one ought to have in his "little black bag" and the kinds and amounts of insurance he should carry. Records are dealt with in extenso. A great variety of forms is illustrated from which the reader can make a choice or find hints for something original. Advice is given on the taking of histories and on filing. Then comes an important section on fees. Tables of the charges made for almost every conceivable procedure are given. Methods for keeping accurate tab on each day's work are set forth and advice is furnished on simple methods of bookkeeping. To aid collections a series of seven letters is printed, the first a semi-apologetic reminder and the seventh a stern "Pay up or else . . ." warning. Then, in logical sequence comes a statement on collecting agencies. Instructions are given on how to select, furnish and equip an office. Plans of lay-out are given for both general practitioners and specialists. The arrangement of furniture in waiting, consulting and examining rooms is illustrated

### General Refresher Course

The Faculty of Medicine, University of Manitoba, announces a General Refresher Course of six weeks' duration, designed for physicians recently discharged from the Services. This course will be given only if a sufficient number of applications are received before February 1st, and will consist of clinical demonstrations, conferences and round table discussions in the following subjects: Medicine, Surgery, Obstetrics and Gynaecology, Paediatrics, Ophthalmology, Ear, Nose and Throat, and Clinical Pathology. Applications should be addressed to the Secretary of the Post-

Sangrado, hurrying on his cloak and hat: For mercy's sake! cried he, let us set forth with all possible speed, for this doctor dispatches business so fast, that our fraternity cannot keep pace with him. That fellow spoils half my jobs.

Le Sage: "History of Gil Blas" (1688-1746)

and the laboratory is discussed from the stand-point of equipment and use.

An important chapter deals with the engaging of training and duties of office personnel. The duties of secretary and nurse are given in detail. These assistants need only be given the appropriate pages to read in order to make them fully aware of what they ought to do and how they ought to do it. The instructions are so complete and cover so many points not likely to be thought of by young or inexperienced employers that they add greatly to the value of the book. There is a chapter on Forensic Medicine which sets forth the legal responsibilities of doctors, enumerates the common bases of law suits, tells how suits can be avoided and, in general, covers the relationship of the doctor to the law both in and out of court. There are chapters on the purchase of insurance of various kinds, on income tax, on the current trends in practice (state medicine, health insurance, etc.). Advice is given on the selection and care of instruments and there are many examples of printed instructions for the guidance of patients in carrying out the doctor's directions for many conditions. A good deal of information is given on how to prepare for, and enter, various public services and different specialties. Taking it by and large this book is full of the information a doctor needs when he is embarking on practice and which he usually gathers for himself by experience or seeks to get from his elders. Those who are established but who feel that they are not reaping the full rewards of their labours will find the book valuable reading. It is a guide to the building of a profitable practice. J. C. H.

be  
Graduate Committee, Dean's Office, Medical College, Bannatyne Avenue, Winnipeg. The registration for this course will be limited to 15. The fee will be \$12.50 per week, payable from the student's rehabilitation grant. The date on which this course will commence will be announced later, but will probably be early in April, 1946. A detailed syllabus of the course will be available shortly.

If the above course is given, and the number of applicants falls short of the specified number required, applications from civilian practitioners will be accepted.



## Winnipeg Medical Society—Notice Board

A. M. Goodwin, President  
W. F. Tisdale, Vice-Pres.

### Next Meeting

February 15th

C. K. Bleeks, Treasurer  
R. A. MacPherson, Secretary

### Two Against Smallpox

J. C. Hossack

Elsewhere in this issue you will find a review of a book on the effects produced by smallpox on the American Indians. Nowadays we are not inclined to give much thought to that ancient scourge. Vaccination is so universal a practice and so few of us have had any personal contact with the disease that we are inclined to forget that it was, less than 200 years ago, so very common that a contemporary German physician said that few escaped love or smallpox. The safety we enjoy today stands in marked contrast with conditions as they existed almost from the dawn of history. In the 12th century B.C. both the Chinese and the inhabitants of India were only too familiar with smallpox and its effects. As long ago as 500 B.C. both of these peoples were employing variolation and it seems strange that this crude but efficient counter-measure was neglected in Europe. In both India and China, however, the treatment was accompanied by religious rites and applied by the priests who stressed the latter as alone giving efficacy to the former. Christendom, therefore, spurned the aid of a method which savoured so of paganism and the potency of the Devil. This attitude, indeed, persisted to blind the ignorant who would not see the revolution being wrought by Lady Mary Wortley Montague and Edward Jenner. These two, whose names will live unto the end of time, and who were among the greatest benefactors of our race, live in our memories as names rather than as individuals. It is in order to reveal them as people that these brief biographies are written.

#### Lady Mary Wortley Montague

Lady Mary Pierrepont was born in 1690, the beautiful, charming and accomplished daughter of the Earl (later the Duke) of Kingston. It is from his family, though not from himself, that the Ontario city takes its name. Canada is thus linked with the introducer of variolation just as later on we shall show that it has a personal connection with Jenner. Lady Mary's father was prominent in the Kit-Cat Club of which the physician Garth was also a member. At least once did Sir Samuel and Lady Mary meet, for her father jokingly added her name to the list of toasts, whereupon the company demanded that she be brought before them for they had not seen her. And so the little Miss of eight was

brought to the Club and honoured in the appropriate fashion. Lady Mary was very much in things even when a child and when she grew up it was in a cultured and learned society. There is little wonder then that she was well versed in the classics both ancient and modern. Indeed it was her appreciation of certain Latin authors that led to her marriage and the first present she received from the man whom she was later to marry was a handsome volume of the works of a Roman author with whom she was not familiar. After her marriage her husband was appointed ambassador to Turkey and it was there that she first learned about variolation. Here is what she says about it in a letter written in 1717 (the year before Garth died).

"The small-pox, so general and so fatal amongst us, is entirely harmless by the invention of 'ingrafting', which is the term they give it. There is a set of old women who make it their business to perform the operation every autumn in the month of September, when the great heat is abated. People send to one another to know if anyone has a mind to have the small-pox. They make parties for this purpose and when they are met (commonly 15 or 16 together) the old woman comes with a nut-shell full of the matter of the best sort of small-pox, and asks you which vein you please to have opened. She immediately rips open that you offer to her with a large needle (which gives you no more pain than a common scratch), and puts into the vein as much matter as can lie upon the head of her needle, and after that binds up the little wound with a hollow bit of shell, and in this manner opens four or five veins. The children or young patients play together all the rest of the day and are in perfect health till the 8th. Then the fever begins to seize them and they keep their beds two days, very seldom three. They have very rarely above twenty or thirty on their faces, which never mark, and in eight days' time they are as well as they were before their illness. Where they were wounded there remain running sores during the distemper, which I don't doubt is a great relief to it. Every year thousands undergo the operation; and the French ambassador says pleasantly that they take the small-pox here by way of diversion, as they take the waters in other countries. There is no example of anyone that has died of it and you may believe me that I am well satisfied of the safety of my dear little son. I am patriot enough to try to bring this useful invention into fashion in England."

After her return from the East Lady Mary strove to accomplish her benevolent intention of rendering a malignant disease comparatively harmless. It was, however, an arduous and thankless undertaking. The medical profession, rising against her almost to a man, offered the most pertinacious opposition. The Princess of Wales (afterwards Queen Charlotte) anxious for the safety of her own children and inspired by the enthusiasm of Lady Mary, lent her support. In 1721 Lady Mary had her daughter variolated and four physicians were deputed by the government to watch the course of the illness. The doctors were so desirous of failure, the story goes, that the anxious mother refused to leave them alone with her child lest they might do her a mischief. The operation, however, was quite successful but the King still demanded further proof. Accordingly four condemned criminals were placed at the disposal of the experimenters and, this test also having proved successful, the King finally gave permission for the variolation of his grand-daughters.

There were many physicians who still condemned the practice and they were vehemently supported by certain of the clergy. One of them included in his sermon these words: "a diabolical operation which usurps an authority founded neither in the laws of nature or religion; which tends, in this case, to anticipate and banish Providence out of the world and promote the increase of vice and immorality"—words that are strangely reminiscent of the arguments recently advanced against the control of syphilis.

The Royal approval, however, made the practice common but the fees charged by the physicians were so high that those who most needed protection—the poor—were unable to afford it. Inspired by those who should have known better, mobs hooted and insulted the woman who had striven so hard to help them, and she was abhorred as an un-natural mother who risked the lives of her own children. In France her "invention" found more favour. There her chief protagonist was Voltaire who found it necessary merely to tell his fellow-countrywomen that the un-married beauty of the people of Circassia and Georgia was in no small part due to practice of variolation. Vanity did the rest. Before her death she had the satisfaction of seeing her labours bear fruit. For the benefit of the poor a Small-pox Hospital was founded in 1746 and Richard Meade persuaded the College of Physicians to give variolation their official approval. This was in 1754, eight years before Lady Mary died from that other great but still unconquered malignancy—cancer.

#### Edward Jenner

Edward Jenner was born in 1749, when Lady

Mary Montague was 59 and variolation had been practiced for about 27 years. He was a pupil of the great experimenter John Hunter whose advice "Don't think, try" was to be Jenner's rule of life. Accordingly when Jenner heard that there was prevalent a vague notion that somehow those who had contracted cow-pox did not develop small-pox, he determined to find out the truth of the story.

Many doctors had doubtless heard the same tale but none had sought to prove it. The experiment was performed on the 14th of May, 1796 and here is Jenner's account of it: "A Boy of the name of Phipps was inoculated in the arm from a pustule on the hand of a young woman who was infected by her master's cows. Having never seen the disease but in its casual way before, that is, when communicated from the cow to the hand of the milker, I was astonished at the close resemblance of the pustules, in some stages, to the variolous pustules. But now listen to the most delightful part of my story. The boy has since been inoculated for the small-pox which, as I ventured to predict, produced no effect."

Never before had there been a discovery so beneficial to man, and never before had a discovery been met with so violent and so virulent an opposition. Vituperation poured upon Jenner and his practice. Again the physicians were in the fore-front of the attack. Again pulpits shook under the pounding fists of angry clergy. Again pens and pencils were kept busy writing denunciations and drawing cartoons all aimed at the man and the method now so universally applauded. One such authority exclaims: "The omnipotent God of nature has permitted Evil, Buonaparte and Vaccination to exist, to prosper, and even to triumph for a short space of time, perhaps a little longer, than the scourge and punishment of mankind. But are we to worship, to applaud, or to even submit to Evil, to Buonaparte, or to Vaccination because they have for some time been prosperous? No! Let us contend against them with all our exertions and might not doubting we shall ultimately triumph." Another anti-vaccinationist writes: "Among the numerous shocking cases of cow-pox which I have heard of, I know not if the most horrible of all has yet been published, viz., of a child at Peckham who after being inoculated with the cow-pox, had his former natural disposition absolutely changed to the brutal; so that it ran upon all fours bellowing like a cow and butting with its head like a bull." It is difficult to see how such wild tales could have gained any credence.

Most assuredly in many circles Jenner was a prophet without honour in his own country. How different is the story when we go abroad. Squa-

Germany, Jenner's birthday was celebrated as a public holiday. In Russia, the Empress had her first child vaccinated and added to his names for the first and last time in recorded history — Vaccinoff. In France, Napoleon struck a medal in Jenner's honour and for his sake ("We can deny nothing to that name") liberated a number of Englishmen held as prisoners of war. A letter from Jenner was the safest of passports. The words of a shy, retiring man, penned in a modest cottage, commanded more respect in the courts of Europe than did the impressive documents issued by Chancelleries and signed by Kings. Even his gloomy majesty of Spain, than whom no other potentate was more remote from the affairs of the common people, even he knew of Jenner. Barriers of stone, of steel, of flesh, of formality which were impervious to all things else melted before the magic of the name of Jenner. Everywhere throughout the world prisoners were set free at the request of this universal benefactor. Only in England did he have no prestige. No appeal of his went unanswered abroad; none was granted at home.

There is a story which brings the efforts of Jenner nearer home. In 1806 the King of Spain commanded the inoculation of his overseas subjects. About this time an adventurous Canadian youth who had been helping the Venezuelans in their rebellion against Spain, found himself a prisoner in Mexico, then a Spanish possession. His father, who was a Justice of the Court of King's Bench of Upper Canada, approached Jenner through a friend and begged for his assistance. He had already asked for the intercession of the Spanish Ambassador in the United States but had been told that the King alone could grant the prisoner's release and only by directly approaching the Throne could the Royal clemency be obtained. Under the circumstances this answer was tantamount to saying "Give up all hope." It was then that the despairing father sought the aid of Jenner. One can imagine the country doctor composing his letter to His Most Catholic Majesty between visits to the lowliest of mankind. Finally it was written and despatched, and the man who ruled the destinies of half the world put off the attributes of awe and majesty and honoured himself as well as Jenner by granting the petition.

When fame came to him Jenner did not forget its source and for his first patient he built a cottage in the garden of which he planted roses with his own hands. What he did for the girl who supplied the virus we are not told but it is unlikely that she was forgotten. Jenner died of a stroke in 1823. The monument in Trafalgar Square was erected in 1858.

## Opportunity in Manitoba

Openings Available for

# 4 Assistant Physicians

and

# 4 Junior Physicians

Here is an excellent opportunity to join the Division of Psychiatry, Manitoba Department of Health and Public Welfare. Salary range is \$2,400 to \$3,000 per year plus full maintenance for Assistant Physicians and \$1,800 to \$2,400 per year plus full maintenance for Junior Physicians.

**FULL MAINTENANCE INCLUDES NICELY FURNISHED LODGINGS, LIGHT, WATER, HEAT, BOARD AND LAUNDRY. THIS MAINTENANCE ALSO PROVIDED FOR FAMILIES OF MARRIED MEN.**

Starting salary for Physicians with experience in the armed services or elsewhere may be above minimum within their range, depending on experience.

Opportunities are provided and every encouragement given to physicians desiring to write necessary examinations to secure certificates as specialists in the field of Psychiatry.

Openings will also be available for trained Physicians to staff mobile Mental Health Clinics throughout the Province, specializing in Child Psychiatry and Mental Health Education.

**SUCCESSFUL APPLICANTS ARE ASSURED OPPORTUNITIES FOR PROFESSIONAL AND SCIENTIFIC ADVANCEMENT**

For full particulars, apply immediately to

**Manitoba Civil Service Commission**

223 Legislative Bldg.

Winnipeg, Man.



## *the important mild case*

When a patient suffers from a *mild* degree of nutritive failure, or requires regular nutritive prophylaxis as in pregnancy, the careful physician prescribes the entire dietary allowance—and no less—that are recommended by the Food and Nutrition Board of the National Research Council.

*For literature, write*  
E. R. Squibb & Sons of Canada Limited  
36-48 Caledonia Road, Toronto

Squibb Special Formula Vitamin Capsules meet these essential requirements. Only one capsule daily, administered under the physician's direction, provides:

Vitamin A . . . . .	5000 units
Vitamin D . . . . .	800 units
Thiamine . . . . .	2 mg.
Riboflavin . . . . .	3 mg.
Niacin . . . . .	20 mg.
Ascorbic Acid . . . . .	75 mg.

# SQUIBB Special Vitamin Formula

# Editorial

J. C. Hossack, M.D., C.M. (Man.), Editor

## The University Site

As a profession, as well as individuals, we should take an interest in the University question. The medical students have, of course, their workshops conveniently situated in the City and close together. But the function of a University is not merely to give practical training for a profession—to develop technical skills of limited application. An equally important office is the fostering and developing of culture. It is necessary that medical students should first of all be trained to become efficient doctors; but they should be trained also to become members of a learned profession. How many of us, I wonder, would be in practice if licensure required a classical knowledge greater than an ability to translate our diplomas?

A century or so ago doctors were almost as well versed in the humanities as they were in medicine. We can treat disease much more effectively now than could be done then. But that is not because cultural subjects have been neglected. Extensive knowledge of one's profession is not incompatible with extensive erudition. But in times past doctors were expected to be erudite as well as skilful and their education was planned to accomplish both of these ends. Our natures have not

greatly changed and in the minds of many students there must be a desire for instruction, or at least guidance, in these pecuniarily unremunerative studies. Such a desire could be met by cultural associations among University students, encouraged and directed by members of the Faculty. Thus could young men be lead to appreciate the pleasures and advantages of a familiarity with classical authors in all realms of artistic or literary effort even though they have little Latin and less Greek. The whole world in space, and all ages in time are open to any one who is curious and can read, but direction and conference are invaluable aids to understanding.

Children whose hearts lie without, and not within, the chest do not thrive. Neither can a community thrive if its cultural heart lies miles away. The University is the cultural heart of the community and should therefore be, as it were, enwrapped by the community. Then it could serve with maximum efficiency for it would be a convenient meeting place for those eager to enjoy its advantages and it would be encouraged to add to those advantages. Then students in "practical" faculties who wished to "travel in the realms of gold" would find companions and guides and in that company explore the "many goodly kingdoms" of literature.

## Manitoba Medical Association (Canadian Medical Association, Manitoba Division) Statement of Revenue and Expenditure For Year 1945

	Revenue	Dr.	Cr.
Membership Fees Collected:			
416 Members @ \$8.00 per member .....	\$3,328.00		
5 Members @ \$5.50 (combined fee) .....	27.50		
	<hr/>		
421			
2 1946 Fees Paid in Advance @ \$7.00 .....	14.00		
Refund from C.M.A. on 1944 Fees .....	393.50		
	<hr/>		
Less 7 1945 Fees Paid in 1944 .....	\$3,763.00		
	56.00		
	<hr/>		
Interest on Bonds .....		\$3,707.00	
Winnipeg Medical Society .....		297.06	
	<hr/>		
General Expense:		420.00	
Annual Meeting .....	\$ 73.90		
Bank Charges, Exchange, etc. ....	23.31		
Executive Luncheons .....	26.35		
Advertising Demobilized Doctors .....	\$ 170.55		
Bond on Treasurer .....	5.00		
Business Tax .....	20.06		
Copyright—Manitoba Medical Review .....	3.00		
Gold Medals and Tax (2)—E. S. Feldsted .....	75.00		
Legal Fees re Workmen's Compensation Board Act .....	50.00		
Legal Opinion re Income Tax .....	10.00		
Manitoba Medical Service Ballots—W. Lawson .....	12.00		

Reporting re Proposed Health Plan—M. E. Watterson.....	48.75	
Typewriter ( $\frac{1}{3}$ paid by Winnipeg Medical Society).....	120.75	
Servicing Typewriter .....	8.00	
Telephone .....	109.36	
Wreaths .....	20.00	
Miscellaneous .....	16.81	
		669.28
Printing, Postage and Stationery .....		307.75
Rent .....		336.00
Salaries:		
H. M. Brown .....	\$1,500.00	
E. Prest (Holiday Relief) .....	60.00	
Unemployment Insurance Stamps .....	14.85	
J. C. Hossack (Honourarium) .....	475.00	
		2,049.85
Travelling Expenses—Dr. S. Schultz .....		155.80
		\$3,642.24
		\$4,424.06
		3,642.24
Excess of Revenue Over Expenditure .....		\$ 781.82

### Statement of Assets and Liabilities as at December 31st, 1945

Assets	Dr.	Cr.
Investments:		
Province of Manitoba, 1947, 4% .....	\$1,000.00	\$ 975.31
Province of Manitoba, 1956, 4½% .....	2,000.00	1,957.12
Canadian National Railways, 1969, 5% .....	1,000.00	1,086.07
Dominion of Canada, 1952, 3% .....	2,000.00	1,975.00
Dominion of Canada, 1957, 3% .....	1,000.00	1,000.00
Dominion of Canada, 1959, 3% .....	500.00	500.00
Dominion of Canada, 1963, 3% .....	500.00	500.00
		\$7,993.50
Balance in Bank of Montreal .....		432.86
Petty Cash on Hand .....		20.00
Accounts Receivable:		
Review Advertisers .....	\$ 643.03	
Extra Mural (College of Physicians and Surgeons) .....	18.95	
Advance Expenses Paid on Review .....	128.55	
J. G. Whitley—Advance Travelling Expenses .....	47.90	
		838.43

### Liabilities

Canadian Medical Procurement and Assignment Board .....	\$ 635.32
---	-----------

### Surplus Account

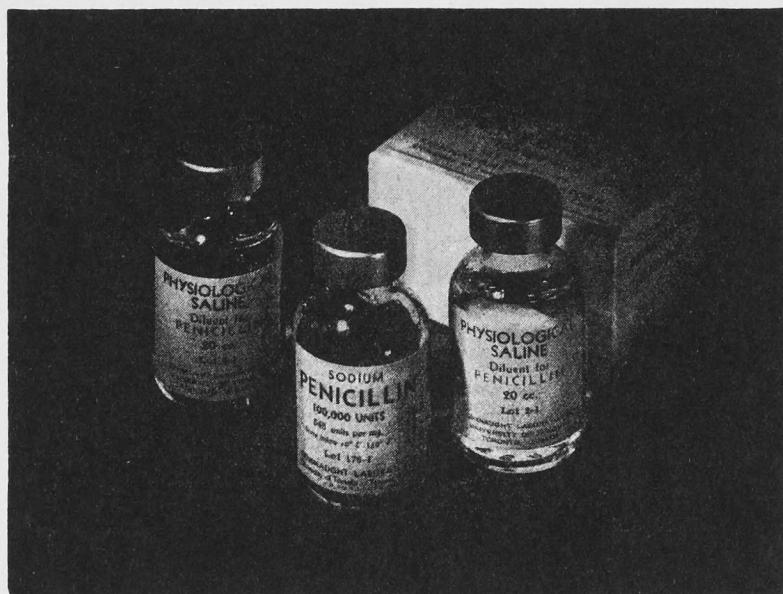
Balance as at December 31st, 1944 .....	7,867.65
Add Excess of Revenue Over Expenditure .....	781.82
	<u>\$9,284.79</u>
	<u>\$9,284.79</u>

### Committee on Sociology

Balance in Bank of Montreal as at December 31st, 1944 .....	\$ 397.06
By Interest on \$2,000.00 Dominion of Canada 3% Bonds .....	60.00
By 5% Deductions made from Relief Accounts paid to Doctors and Received by Sociology Committee, as follows:	
Municipality of East Kildonan .....	23.20
To C. M. Boswell—Legal Fees re Collection of Dr. J. J. Bourgouin's Account re F. Lamoureux .....	\$ 20.00
	<u>\$ 20.00</u>
	<u>\$ 480.26</u>
	20.00
Balance in Bank of Montreal as at December 31, 1945 .....	\$ 460.26

A. M. Goodwin, M.D., Honorary Treasurer.

# SODIUM PENICILLIN - CONNAUGHT



SODIUM PENICILLIN is supplied by the Connaught Laboratories in sealed rubber-stoppered vials as a dry powder which remains stable for at least a year if stored at a temperature below 10° C. (50° F.). Each vial contains 100,000 International Units.

PHYSIOLOGICAL SALINE, sterile and pyrogen-free, is supplied in 20-cc. rubber-stoppered vials, permitting of the convenient preparation of various dilutions of penicillin, e.g., by adding 20 cc. of saline to a vial of penicillin a solution containing 5,000 units per cc. is obtained, or if 2 cc. be used, a solution containing 50,000 units per cc.

*As supplied by the Connaught Laboratories,  
Sodium Penicillin is of high quality and  
is free from irritating substances.*

## CONNAUGHT LABORATORIES

University of Toronto

Toronto 5, Canada

*Depot for Manitoba*

**BRATHWAITES LIMITED**

431 Portage Avenue, Winnipeg

## Department of Health and Public Welfare

### Comparisons Communicable Diseases — Manitoba (Whites and Indians)

DISEASES	1945		1944		TOTALS	
	Dec. 1 to Dec. 29	Nov. 4 to Dec. 1	Dec. 3 to Dec. 30	Nov. 5 to Dec. 2	Jan. 1 to Dec. 29, '45	Jan. 1 to Dec. 30, '44
Anterior Poliomyelitis						
Chickenpox	206	273	238	243	2385	2301
Diphtheria	20	22	38	56	281	262
Diphtheria Carriers	3	1	1	7	36	35
Dysentery—Amoebic					1	
Dysentery—Bacillary			49	3	20	116
Erysipelas	5	7	1	9	51	71
Encephalitis					10	11
Influenza	10	5	11	19	176	253
Measles	8	24	103	124	505	5512
Measles—German		2	3	2	38	245
Meningococcal Meningitis		2	1	1	14	23
Mumps	68	62	27	38	1474	1530
Ophthalmia Neonatorum					1	
Pneumonia—Lobar	4	5	12	18	128	195
Puerperal Fever					1	6
Scarlet Fever	64	48	78	88	757	2099
Septic Sore Throat	4	5	1	1	37	25
Smallpox						
Tetanus					3	2
Trachoma					5	
Tuberculosis	56	128	28	95	749	714
Typhoid Fever		1	5	3	41	52
Typhoid Paratyphoid				1	6	1
Typhoid Carriers					3	1
Undulant Fever		2			12	8
Whooping Cough	42	4	29	36	355	459
Gonorrhoea	224	228	161	108	2348	1737
Syphilis	67	55	56	43	722	663
Diarrhoea and Enteritis, under 1 yr.	2				20	
Actinomycosis						2

### DEATHS FROM COMMUNICABLE DISEASE

November, 1945

**Urban**—Cancer, 52; Pneumonia Lobar, 3; Pneumonia (other forms), 3; Poliomyelitis, 1; Tuberculosis, 5; Hodgkin Disease, 1; Septicemia, 1; Diarrhoea and Enteritis, Other deaths under 1 year, 13. Other deaths over 1 year, 186. Stillbirths, 12. Total, 278.

**Rural**—Cancer, 28; Diphtheria, 2; Influenza, 1; Lethargy Encephalitis, 1; Pneumonia Lobar, 2; Pneumonia (other forms), 10; Syphilis, 1; Tuberculosis, 25; Hodgkin Disease, 1; Diarrhoea and Enteritis, 2. Other deaths under 1 year, 20. Other deaths over 1 year, 177. Stillbirths, 11. Total, 281.

**Indians**—Diphtheria, 1; Influenza, 1; Pneumonia, 3; Tuberculosis, 8. Other deaths under 1 year, 6. Other deaths over 1 year, 7. Stillbirths, 1. Total, 27.

DISEASES	*726,000 Manitoba	*3,825,000 Ontario	*906,000 Saskatchewan	*2,972,000 Minnesota	*641,000 North Dakota
<b>(White Cases Only)</b>					
*Approximate population.					
Actinomycosis					
Anterior Poliomyelitis		1	3	7	—
Chickenpox	205	1,349	364	—	27
Diphtheria	19	34	5	26	5
Diphtheria Carriers	3				
Dysentery—Amoebic				10	
Dysentery—Bacillary					
Encephalitis, Epidemic					
Erysipelas	5	2	1	—	12
Influenza	10	182	—	15	3,336
Jaundice—Infectious		8			
Measles	8	1,749	36	12	5
Measles—German		77	11		
Meningococcal Meningitis		3		6	1
Mumps	68	318	68	—	
Ophthalmia Neonatorum					
Pneumonia—Lobar	4				
Scarlet Fever	64	313	28	149	38
Septic Sore Throat	4	6	—	—	5
Smallpox					
Tetanus		1	—	—	
Trachoma					7
Tuberculosis	42	226	49	2	8
Typhoid Fever		1	—	—	
Typhoid Para-Typhoid		3	—	—	
Typhoid Carriers					
Undulant Fever		6	—	8	1
Whooping Cough	42	118	2	45	3
Gonorrhoea	224	550	—	40	
Syphilis	67	463	—	20	
Diarrhoea and Enteritis under one year	2				

This report is for the last four-week period in 1945, so it is interesting to compare the number of cases reported in Manitoba in 1945 with the number in 1944. It is apparent that almost all communicable diseases showed lower incidence in 1945. The noteworthy exceptions are diphtheria, septic sore throat, tuberculosis and venereal diseases.

As scarlet fever shows a definite decrease we need especially alarmed by the slight increase in the other haemolytic streptococcus infection, that is, septic sore throat. However, the increase in diphtheria, tuberculosis and venereal diseases should indicate to all of us where attack must be intensified in 1946. The best defense is take the offense.



DIGITALIS LANATA

# CEDILAND

## The “C” glycoside of Digitalis Lanata

• • • • • • • • • • • • • • •

### *Significance of a High Sugar Content*

Owing to a protective process of extraction first introduced and exclusively employed by Sandoz, Cedi-lanid is isolated in the most potent initial form. This means it is identical in its structure with the glycoside which exists in the fresh *Digitalis lanata* plant. In this stage, the glycoside possesses the highest possible amount of carbohydrate per molecule. Stoll and his collaborators have shown that the hitherto best-known pure glycosides of *Digitalis purpurea* are products of degradation which have lost carbohydrates during the process of purification. The significance of the sugars in reference to cardiac activity was investigated by Rothin; Chen, Robbins and Worth; and Chen and Elderfield. According to Chen and Elderfield, “the sugar molecule or molecules when conjugated in nature with the aglucones definitely increase the cardiac activity of the latter, although they possess no such effect themselves.



PHARMACEUTICAL SPECIALITIES  
Canadian Representative  
**The WINGATE CHEMICAL CO. LIMITED**  
MONTREAL



## College of Physicians and Surgeons of Manitoba

### Registration Committee

Winnipeg, Man., November 8, 1944.

A meeting of the Registration Committee was held in the Registrar's office, 605 Medical Arts Building, at 4.30 p.m., on Wednesday, November 8th, 1944.

Members present: Drs. T. D. Wheeler, Wm. Turnbull, and W. G. Campbell.

Business before the meeting was as follows:

#### 1. Consideration of the Registration of Dr. William John Ewen.

Dr. Ewen is a graduate of Queen's University, 1938, Licentiate of the Medical Council of Canada, 1938. He is at present a Major in the R.C.A.M.C. overseas. The idea of his registering in Manitoba was, according to his request, that he might register in Great Britain to do post-graduate work after the war. His credentials were found in order.

#### Motion:

Moved by Dr. T. D. Wheeler, Seconded by Dr. Wm. Turnbull: "THAT a license be granted to Dr. William John Ewen." Carried.

#### 2. Consideration of an Enabling Certificate Issued to Dr. Assad Jarrah Zade.

This enabling certificate was granted to Dr. Zade by the Registration Committee on January 14th, 1942. Since granting this certificate, Dr. Zade, we understand, has appeared twice to write the examinations of the Medical Council of Canada, and has failed. Recently information has been ascertained that Dr. Zade had not complied with all the requirements, and there has been considerable controversy about the issuing of his enabling certificate.

#### Motion:

Moved by Dr. T. D. Wheeler, Seconded by Dr. Wm. Turnbull: "THAT this committee rescind the action of the Registration Committee, under date of January 14th, 1942; and withdraw its consent to the formerly issued enabling certificate." Carried.

### Executive Committee

Winnipeg, Man., November 8, 1944.

A meeting of the Executive Committee was held in the Registrar's office, 605 Medical Arts Building, at 5.00 p.m., on Wednesday, November 8th, 1944.

Members present were: Drs. Wm. Turnbull, J. S. Poole, I. H. Beckman, H. B. Chown, and W. G. Campbell.

#### 1. Consideration of the Report of the Committee Appointed at the Annual Meeting of the Council, October 18th, 1944, to meet the Board of the Manitoba Medical Service.

Dr. H. Bruce Chown read two letters received from the Manitoba Medical Service. He stated that

the findings of the sub-committee of the Financial Committee was to recommend that the money paid at once to the Manitoba Medical Service, they definitely realize now, that the College of Physicians and Surgeons expect repayment.

#### Motion:

Moved by Dr. H. B. Chown, Seconded by Dr. W. G. Campbell: "THAT the Executive Committee of the College of Physicians and Surgeons be authorized to pay the Three Thousand Dollars (\$3,000.00) to complete the guarantee made to the Manitoba Medical Service, and to have the Manitoba Medical Service ask the Executive Committee to appoint a representative from the College of Physicians and Surgeons to act on their board." Carried.

#### Motion:

Moved by Dr. H. B. Chown, Seconded by Dr. W. G. Campbell: "THAT, if and when a request is received to have a member of the Council become a member of the Manitoba Medical Service's Board, Dr. T. D. Wheeler be appointed to act on the board of the Manitoba Service until the next meeting of the Council." Carried.

#### 2. Re Dr. Nicholas Farkas Practicing at Pilot Mound, Manitoba.

Dr. Campbell presented a letter from Dr. F. Jackson, Deputy Minister of Health, stating provisions for Dr. Farkas being allowed to practice without a license. He explained that the village of Pilot Mound needed a physician very badly, and that none were available at the present time. The village had arranged for an interpreter to be with Dr. Farkas.

Dr. W. G. Campbell asked the committee their consent to his action in letting Dr. Farkas practice in Pilot Mound, Manitoba.

#### 3. Re Standardizing Pre-Medical Years.

Dr. Campbell reported that he has received communication stating that a resolution has been passed by the Canadian Medical Association which reads as follows:

"THAT we recommend for the consideration of the Association of Medical Colleges and the College of Physicians and Surgeons, the question of standardizing the pre-medical year which would make it possible to take this at any school where it is available."

### Registration Committee

Winnipeg, Man., January 25, 1945.

A meeting of the Registration Committee was held January 25th, 1945.

Members present were: Dr. T. D. Wheeler, Dr. W. G. Campbell.

Business before the meeting was as follows:

**1. Application for Registration of Capt. D. A. Stewart, M.D.**

Capt. D. A. Stewart has been appointed by the Provincial Department of Health and the Royal Canadian Army Medical Corps to civilian work in the Town of Rivers, and the Municipality of Daly, Manitoba. Dr. Stewart's credentials were found satisfactory to all members of the Committee.

**Motion:**

Moved by Dr. T. D. Wheeler, Seconded by Dr. W. G. Campbell: "THAT a temporary license be granted to Dr. Donald Alexander Stewart, according to the provisions of amendment to the Medical Act, as assented to on April 6th, 1944." Carried.

**2. Consideration of Application for Registration from Dr. Ernst Bustin.**

Dr. Bustin is a graduate from Vienna, and a licentiate of the Medical Council of Canada under date of May 26th, 1944. Awaiting further information from the Registrar of the College of Physicians and Surgeons of Ontario, no definite decision was arrived at.

**3. Consideration of Application for Registration from Dr. A. Swerdlov, Medical Officer-in-Charge of 19 British Reception Station, Middle East Forces.**

The Committee considered before giving this application further consideration, information should be obtained from the Registrars of the different provinces of Canada, to ascertain if Dr. Swerdlov had made a similar application to other provincial councils.

**4. Consideration of a Letter from Dr. Routley under date of January 14th, 1945, asking if the Council of the College of Physicians and Surgeons of Manitoba could grant Registration to Colonel Lebbetter, M.D.**

Col. Lebbetter is a graduate from Dalhousie University, served in the first great war, and also is serving in the present war. "According to the letter, he was considered one of the best internists in the Province of Nova Scotia, practicing in Yarmouth." Col. Lebbetter is not registered with the General Medical Council of Great Britain, but according to our by-laws, this would not enable him to become registered in Manitoba. The Committee were of the opinion that Dr. Lebbetter's application should be considered by the full Council at its next meeting.

**Executive Committee**

Winnipeg, Man., February 7th, 1945.

A meeting of the Executive Committee was held in the Registrar's office, 605 Medical Arts Building, at 4.30 p.m., Wednesday, February 7th, 1945.

Members present\* were: Drs. Wm. Turnbull,

W. G. Campbell, H. B. Chown, H. O. McDiarmid and J. S. Poole.

Business before the meeting was as follows:

**1. Re Manitoba Medical Service.**

Dr. W. G. Campbell read correspondence from the Manitoba Medical College stating that Dr. H. O. McDiarmid had been named as the College of Physicians and Surgeons' representative to the Manitoba Medical Service Board, instead of Dr. T. D. Wheeler. Dr. McDiarmid stated that he had received word from the Manitoba Medical Service that he had been named, but was writing them declining the position.

**Motion:**

Moved by Dr. H. O. McDiarmid, Seconded by Dr. J. S. Poole: "THAT a letter be written to the Manitoba Medical Services, stating that Dr. T. D. Wheeler is a resident of rural Manitoba, and that he be the representative of the College of Physicians and Surgeons of Manitoba to the Manitoba Medical Services Board." Carried.

Dr. W. G. Campbell read correspondence from the Manitoba Medical Service asking that Drs. H. D. Kitchen and J. S. McInnes be allowed to appear before the Council at its next meeting. No reasons were given.

**Motion:**

Moved by Dr. J. S. Poole, Seconded by Dr. H. B. Chown: "THAT Drs. H. D. Kitchen and J. S. McInnes be invited to come before the meeting of the Council to be held in May." Carried.

**2. Consideration of the Status of Dr. N. Farkas, Pilot Mound, Manitoba.**

Dr. W. G. Campbell informed the Committee of the contract between the Village of Pilot Mound and the Municipality of Daly, Manitoba, and Dr. N. Farkas. He drew attention to the contract of appointment that he "be continued until such time as the Parties of the First Part are able to obtain a duly qualified physician and surgeon, licensed to practice in the Province of Manitoba, to reside in the said district; and in any event this contract shall be terminated six months after the cessation of hostilities between Canada and all of the enemies of the Allied Nations."

**3. Request from the Bank of Toronto for Representatives to have Access to the Safety Deposit Box.**

On the 7th of December, 1944, the Bank of Toronto forwarded to the Registrar a form to be signed stating the names of the members of the Council who were to have access to and control of the safety deposit box rented by the College of Physicians and Surgeons of Manitoba. The form included the following names:

"The Registrar, Dr. W. G. Campbell, and/or Dr. Wm. Turnbull, member of the Finance Committee, and the Treasurer, Dr. T. D. Wheeler."

**Motion:**

Moved by Dr. H. O. McDiarmid, Seconded by Dr. H. B. Chown: "THAT the form be ratified pro tem and that at the next meeting of the Council, this question receive necessary attention." Carried.

**4. Communication from Dr. Routley re Registration of Col. T. A. Lebbetter.**

Dr. W. G. Campbell read the correspondence re Dr. Lebbetter's registration in Manitoba. The Registration Committee considered this application at a meeting held January 25th, 1945, and decided that this application be presented before the Council at its next meeting.

**Motion:**

Moved by Dr. J. S. Poole, Seconded by Dr. H. O. McDiarmid: "THAT this application be passed on to the Council Meeting in May for consideration." Carried.

**5. Communication from Dr. A. T. Mathers, Dean of the Medical Faculty, re Standardization of Pre-Medical Courses.**

Dr. W. G. Campbell read the letter from Dr. Mathers, and pointed out that if we had Canadian standard pre-medical courses, we would be free of a great deal of trouble with the matter of registration of medical students, enabling certificates, and registration for practice.

The Committee moved that the letter be filed.

**6. Re Medical Business Agencies Ltd.**

Dr. W. G. Campbell reported that the Medical Business Agencies Ltd. requested permission for the use of the word "medical" in their name. After considering the matter, the Committee passed the following motions:

**Motion:**

Moved by Dr. H. O. McDiarmid, Seconded by Dr. H. B. Chown: "THAT a letter be written to Mr. R. N. Fisher, K.C., protesting against the word "Medical" being used in the title of this company, or any similar company." Carried.

**Motion:**

Moved by Dr. W. G. Campbell, Seconded by Dr. H. O. McDiarmid: "THAT a letter be sent to the proposers of the Medical Business Agencies Ltd. stating that the Executive Committee of the College of Physicians and Surgeons of Manitoba objects to the word "medical" being used in the nomenclature of the proposed company." Carried.

**Registration Committee**

Winnipeg, Man., March 9, 1945.

A meeting of the Registration Committee was held in the Registrar's office, 605 Medical Arts Building, March 9th, 1945, at 4.30 p.m.

Members present were: Drs. W. G. Campbell, Wm. Turnbull and T. D. Wheeler.

**1. Re Application of Dr. Ernst Bustin.**

Dr. W. G. Campbell read the letters from Dr.

R. T. Noble, Registrar of the College of Physicians and Surgeons of Ontario, and Dr. S. G. Fine, Superintendent of Mount Sinai Hospital of Toronto, where Dr. Bustin was an interne.

**Motion:**

Moved by Dr. T. D. Wheeler, Seconded by Dr. Wm. Turnbull: "THAT Dr. Ernst Bustin be granted a license to practice in Manitoba." Carried.

**2. Re Application of Dr. A. Sverdlov, for Enabling Certificate.**

Dr. W. G. Campbell reported that he had received several replies from the different registrars of the various Colleges of Physicians and Surgeons of Canada. Nearly all of them had refused Dr. Sverdlov an enabling certificate.

**Motion:**

Moved by Dr. Wm. Turnbull, Seconded by Dr. T. D. Wheeler: "THAT Dr. A. Sverdlov be granted an enabling certificate." Carried.

**3. Re Application of Dr. Nathalie J. Brooks.**

Dr. W. G. Campbell reported that Dr. Brooks had written a letter requesting the requirements for registration in Manitoba, and that a circular letter had been forwarded outlining the requirements.

**4. Re Request from Dr. F. W. Jackson re Temporary Registering Three United States Army Physicians stationed in Northern Manitoba.**

Dr. W. G. Campbell read the reports from Dr. Jackson on each of these three men.

**Motion:**

Moved by Dr. T. D. Wheeler, Seconded by Dr. Wm. Turnbull: "THAT Capt. H. S. Johnson, Capt. M. D. Buskirk, and Capt. W. Lehman, be granted temporary licenses under the clause of the amendment to the Manitoba Medical Act, 1944." Carried.

**5. Re Application of Dr. E. A. Balls.**

Dr. Balls is resident at present in England. He requested to become licensed in Manitoba to enable him to enlist in the Royal Canadian Air Force Medical Corps.

Dr. Balls' qualifications are as follows: M.R.C.O., England, 1945; L.R.C.P., London, 1945.

**Motion:**

Moved by Dr. William Turnbull, Seconded by Dr. T. D. Wheeler: "THAT Dr. E. A. Balls be granted registration in Manitoba." Carried.

**6. Re Application of Dr. F. A. Scott.**

Dr. Scott's qualifications are as follows: M.D., University of Toronto, 1938; L.M.C.C., 1938.

**Motion:**

Moved by Dr. T. D. Wheeler, Seconded by Dr. Wm. Turnbull: "THAT Dr. F. S. Scott be granted registration in Manitoba." Carried.

**Registration Committee**

Winnipeg, Man., May 1st, 1945.

A meeting of the Registration Committee was held May 1st, 1945.

Present: Dr. W. G. Campbell and Dr. T. D.

Wheeler. Dr. Wm. Turnbull was absent on account of illness.

The purpose of the meeting was to consider the application for registration of Dr. Leslie Duncan Croll. Dr. Croll graduated from McGill in 1927, and is a licentiate of the Medical Council of Canada the same year.

**Motion:**

Moved by Dr. T. Digby Wheeler, Seconded by Dr. W. G. Campbell: "THAT a license be granted to Dr. Leslie Duncan Croll." Carried.

**Registration Committee**

Winnipeg, Man., May 11th, 1945.

A meeting of the Registration Committee was held May 11th, 1945.

Present: Dr. W. G. Campbell and Dr. T. Digby Wheeler. Dr. Wm. Turnbull by telephone on account of illness.

The purpose of the meeting was to consider the application for registration of Dr. Elizabeth Virginia Lautsch. Dr. Lautsch's residence was at Prairie Grove, Manitoba. She took part of her education, which consisted of one year, at the University of Manitoba; she took Physics, but no other sciences. Her medical course was taken at Laval, after which she graduated in medicine in 1944. From the Registrar of the College of Physicians and Surgeons of Quebec, she received her enabling certificate, and was registered with the Medical Council of Canada in September, 1944.

**Motion:**

Moved by Dr. T. Digby Wheeler, Seconded by Dr. Wm. Turnbull: "THAT a license be granted to Dr. Elizabeth Virginia Lautsch." Carried.

**Council Meeting**

Winnipeg, Man., May 18th, 1945.

A Special Meeting of the Council of the College of Physicians and Surgeons of Manitoba was held Friday, May 18th, 1945, at 2.00 o'clock p.m., in the Manitoba Medical College, Winnipeg.

The Chairman, Dr. H. Bruce Chown, called the meeting to order.

**1. Roll Call.**

The members present were: Dr. H. Bruce Chown, Dr. A. A. Alford, Dr. I. H. Beckman, Dr. W. G. Campbell, Dr. W. E. R. Coad, Dr. H. O. McDiarmid, Dr. A. E. McGavin, Dr. J. S. Poole, Dr. James Prendergast, Dr. D. G. Ross, Dr. W. F. Stevenson, Dr. N. G. Trimble, Dr. T. Digby Wheeler, Dr. C. W. Wiebe, Dr. B. D. Best, and Dr. C. B. Stewart.

Dr. W. C. Campbell explained that Dr. Wm. Turnbull was absent on account of illness. This is his first absence in twenty years as a member of Council.

**Motion:**

Moved by Dr. James Prendergast, Seconded by Dr. N. G. Trimble: "THAT the Registrar write to

Dr. Wm. Turnbull, regretting his absence from the meeting." Carried.

**2. Reading of the Minutes and Their Approval.**

The minutes of the Council Meeting held October 18th, 1944, were presented.

**Motion:**

Moved by Dr. A. A. Alford, Seconded by Dr. H. O. McDiarmid: "THAT the minutes of the Council Meeting of October 18th, 1944, be accepted as having been read." Carried.

**3. Report of Officers and Their Consideration.**

Not applicable at this meeting.

**4. Reports of Standing Committees and Their Consideration.**

The members of the Council had been furnished previously with copies of the minutes of all the Standing Committees held up to March 9th, 1945.

**Motion:**

Moved by Dr. J. S. Poole, Seconded by Dr. A. E. McGavin: "THAT all minutes of the Standing Committees up to March 9th, as furnished to the members of the Council, be approved." Carried.

Dr. W. G. Campbell read the minutes of the last two meetings of the Registration Committee held on May 1st, 1945, and May 11th, 1945.

**Motion:**

Moved by Dr. W. G. Campbell, Seconded by Dr. N. G. Trimble: "THAT the minutes of the last two meetings of the Registration Committee be accepted." Carried.

**Business Arising From the Minutes of the Registration Committee**

**Motion:**

Moved by Dr. W. G. Campbell, Seconded by Dr. James Prendergast: "THAT our representatives to the Medical Council of Canada, Drs. J. S. Poole and Wm. Turnbull, endeavor to have the Medical Council of Canada establish (1) a definite standard of requirement for enabling certificates, (2) a ruling on the domicile of applicants, and (3) from what provincial medical council the applicants should obtain enabling certificates." Carried.

**Business Arising From the Minutes of the Executive Committee**

**(a) Re Registration of Dr. T. Lebbetter.**

Dr. W. G. Campbell presented Dr. Lebbetter's application for registration. It was the opinion of the Council that any doctor with the experience of Dr. Lebbetter would be more than welcome to practice in Manitoba. Dr. C. B. Stewart explained that Dr. Lebbetter would be employed to do executive work, and internal medicine in the Winnipeg Clinic. Dr. C. Bruce Chown suggested that the only way to register Dr. Lebbetter would be to amend the By-laws. He submitted the following amendment for consideration by the Council:

"That section 29, subsection (a) paragraph 3 be amended by adding the following clause:

'or unless he was (a) licensed in a Province of Canada prior to 1925 and (b) has been in active, ethical practice and/or graduate study continuously since 1925.'

"See Notice of Motion."

**Motion:**

Moved by Dr. C. B. Stewart, Seconded by Dr. D. G. Ross: "THAT the Education Committee be instructed to consider how highly qualified specialists may be licensed to practice in the Province of Manitoba, and report at the next meeting of the Council." Carried.

**(b) Re Nomenclature of the Medical Arts Business Bureau.**

Dr. W. G. Campbell explained to the Council that the Provincial Secretary's Department had asked for the College of Physicians and Surgeons' consent for the word "medical" being used in the nomenclature of the Medical Arts Business Bureau. Dr. Campbell explained that he had written to the members of the Executive Committee, stating the request of the Provincial Secretary's Department, and had received sanction from each member.

**5. Reports of Special Committees and Their Consideration.**

**Report on the Committee of Twelve**

Dr. T. Digby Wheeler presented the following report:

During the last year your Committee of Twelve has held many meetings and many sub-committee meetings. The attendance and interest of the different members of the Committee has been most gratifying. Your Committee feels that it has been extremely fortunate in having the services of the Council solicitor, Mr. E. K. Williams, K.C. His experience and guidance have been a tremendous asset.

There is now on the statute books of the Province of Manitoba, "The Basic Science Act." Several drafts of this Act were prepared by our solicitor and reviewed by your Committee. Discussions were held with the Minister and Deputy Minister of the Department of Health and Public Welfare. Your Committee feels that the Act as now on the statute books is a most desirable one and will protect the general public in as much as all practitioners of the healing art must have a thorough basic training and pass the examinations in the primary subjects as prescribed by the University of Manitoba.

Your Committee did not deem it advisable to oppose the Chiropractors Bill. All future Chiropractors in Manitoba must meet the Basic Science requirements before being granted license. Your Committee is very happy that the Chiropractors legislation and the Basic Science Act has been

brought to a conclusion. These matters have been a great source of irritation, work and uncertainty for the last ten years.

Another matter which was considered by your Committee of Twelve was "The Manitoba Health Services Act." The Minister of Health met your Committee and discussed it with them. Many phases of the Act were reviewed and suggestions were made to the Minister. It may be necessary to have this situation reviewed after the Act has been operated for a year or so.

The third matter which demanded the attention of the Committee of Twelve has been the request from the Attorney-General to investigate the activities of H. J. Munro, Chiropractor. Dr. Munro "treats" his patients all over Canada by radio waves. A Committee has been appointed for this investigation. This Committee is awaiting a directive from the Attorney-General.

Your Committee has had to deal with the matter of Doctors' Accounts with the Workmen's Compensation Board. In the past these accounts have been outlawed if not rendered within a period of six months. It is our understanding that now satisfactory arrangements have been made.

The question of licensure of practical nurses was referred to your Committee. The correspondence was filed because it was felt to be outside our jurisdiction.

**Motion:**

Moved by Dr. T. D. Wheeler, Seconded by Dr. C. B. Stewart: "THAT the report of the Committee of Twelve be adopted." Carried.

**6. Election of Officers and Standing Committees.**

Not applicable at this meeting.

**7. Reading of Communications, Petitions, Etc., from the Council.**

**(a) Completion of Reciprocal Relationship between the Registration Board of New South Wales, Australia, and Manitoba Registrants Who are Graduates from the University of Manitoba.**

Dr. W. G. Campbell read a letter from the Secretary of the New South Wales Medical Board accepting reciprocity of registration between the graduates of the University of Sydney registered with their Board, and the graduates of the University of Manitoba registered with the College of Physicians and Surgeons of Manitoba.

**Motion:**

Moved by Dr. T. Digby Wheeler, Seconded by Dr. I. H. Beckman: "THAT the Registrar be instructed to write to the Secretary of the New South Wales Medical Board, expressing pleasure with the reciprocal relations." Carried.

**(b) Communication from Dr. J. A. Valens, Acting Registrar of the College of Physicians and Surgeons of Saskatchewan re Classification of Specialists.**

The following letter, dated February 8th, 19

was received from Dr. J. A. Valens, Acting Registrar of the College of Physicians and Surgeons of Saskatchewan:

Dear Doctor Campbell:

In view of the trend to Health Insurance, the Council of the College of Physicians and Surgeons of Saskatchewan is interested in learning what has been done in your Province with regard to classifying specialists.

At the Annual Meeting of the Council in this Province the following report of our Specialists Committee was adopted in full:

1. There should be no provincial committee for the certification of Specialists. This is similar to the licensing of medical practitioners and should be done only by the Council of the College of Physicians and Surgeons itself.

2. The Council should grant Specialists certification only to those members of the College of Physicians and Surgeons who have secured a certificate, in the classification applied for, from the Royal College of Physicians and Surgeons of Canada.

Yours very truly,

John A. Valens, M.D.

The Council of the College of Physicians and Surgeons of Manitoba had not assumed or had no jurisdiction regarding classification of Specialists. The Registrar stated that a member of the College was privileged at any time to have any subsequent degree placed on the Register, and urged that advantage be taken of this fact.

(c) **Communication from Hon. J. O. McLenaghan, Attorney-General, re Dr. William Alvin Cooper.**

Dr. W. G. Campbell explained the correspondence, and the Council was of the opinion that the matter was not in its jurisdiction.

#### **Motion:**

Moved by Dr. T. D. Wheeler, Seconded by Dr. W. E. R. Coad: "THAT the matter be referred back to the Attorney-General." Carried.

(d) **Communication from Dr. D. L. Scott, Secretary of the Manitoba Medical Association, re Representative from the Council of the College of Physicians and Surgeons of Manitoba on the Board of the Manitoba Medical Service.**

Dr. W. G. Campbell explained that Dr. H. O. McDiarmid had been appointed by the Manitoba Medical Service as our representative to their Board, but that Dr. McDiarmid had stated he was unable to accept the position. The Board stated that it was necessary that the representative be from rural Manitoba.

A second letter from Dr. Scott stated that the name of the appointee from the Council of the College of Physicians and Surgeons of Manitoba, should be submitted to the Manitoba Medical Association.

#### **Motion:**

Moved by Dr. C. B. Stewart, Seconded by Dr. I. H. Beckman: "THAT Dr. T. Digby Wheeler's name be forwarded to the Manitoba Medical Association, as our representative on the Board of the Manitoba Medical Service." Carried.

(e) **Letter from the Winnipeg Medical Society requesting that their contribution of \$500.00 to the Medical College Library be donated to the Council of the College of Physicians and Surgeons of Manitoba for Administration.**

Dr. W. G. Campbell read a second letter stating that a special resolution had been passed, altering the designation of the "Library Committee of the Faculty of Medicine," to "Medical Library Committee," and that it was unnecessary to trouble the College of Physicians and Surgeons with the matter.

**Letter from Dr. D. Nicholson, Chairman of the Library Committee of the Faculty of Medicine, re Disposition of Special Grants to the Medical Library:**

Dr. W. G. Campbell read a letter from Dr. Nicholson stating that all funds granted to the Medical Library would in future be handled by the Medical Library Committee.

#### **Motion:**

Moved by Dr. W. G. Campbell, Seconded by Dr. C. B. Stewart: "THAT the College of Physicians and Surgeons' contribution to the Medical Library be handed over to the Medical Library Committee." Carried.

(f) **Communication from the Red Cross.**

A communication from the Red Cross, dated February 7th, 1945, was presented.

#### **Motion:**

Moved by Dr. T. D. Wheeler, Seconded by Dr. I. H. Beckman: "THAT the letter be filed." Carried.

(g) **Letter from the Registrar, College of Physicians and Surgeons of British Columbia, re Dr. Gin Min Li.**

Dr. Gin Min Li had appeared in British Columbia as an interne at the Royal Jubilee Hospital, Victoria, and had presented several letters purporting his high standing, from different institutions in China, which the College of Physicians and Surgeons of British Columbia found not true. The Registrar wrote to one doctor who had supposedly given one of the recommendations, and he stated that he had never even heard of such a man.

Dr. W. G. Campbell brought this matter before the Council, in case Dr. Gin Min Li applied at any of the Manitoba Hospitals.

#### **8. Enquiries.**

None.

#### **9. Notice of Motion.**

Moved by Dr. N. G. Trimble, Seconded by Dr. I. H. Beckman: "THAT section 29, subsection (a)

HPL

## For the Preparation of Penicillin Cream

# 'Eucerin' LM

Trade Mark

**'EUCERIN' LM has been specially compounded for the preparation of Penicillin creams. It is stable under sterilisation and produces an elegant cream, neutral in reaction and non-irritant.**

" . . . Recent experiments suggest that penicillin retains its activity better in a Eucerin type of base . . . "

"Advances in dispensing practice"  
Chemists and Druggists, Sept. 15th, 1945.

**'EUCERIN' LM**

is available in 1-lb.  
and 5-lb. tins

Made in Canada for

**Herts Pharmaceuticals Ltd.**  
Welwyn Garden City  
Herts, England

Trial sample and literature  
on request

**VANZANT & COMPANY**  
357 College Street  
Toronto 2B, Ont.

paragraph 3 be amended by adding the following clause:

"or unless he was (a) licensed in a Province of Canada prior to 1925 and (b) has been active, ethical practice, and/or graduate study continuously since 1925." Carried.

### 10. Motions of which Notice has been given at Previous Meeting.

#### (a) A Motion Required to Complete the Changes in the Gordon Bell Memorial Indenture Following Notice of Motion Passed at the Meeting of the Council, October 18, 1945.

Moved by Dr. T. Digby Wheeler, Seconded Dr. H. O. McDiarmid: "THAT the changes in Gordon Bell Memorial Indenture be accepted." Carried.

### 11. Unfinished Business from Previous Meeting.

Dr. J. S. Poole pointed out that the names of the representatives of the Council of the College of Physicians and Surgeons of Manitoba, to the Medical Council of Canada, did not appear in the minutes of the last Council Meeting, held October 18th, 1945.

#### Motion:

Moved by Dr. H. O. McDiarmid, Seconded Dr. James Prendergast: "THAT Drs. J. S. Poole and Wm. Turnbull be our representatives on the Medical Council of Canada." Carried.

### 12. Miscellaneous and New Business.

#### (a) Registration Under the Companies Act.

Dr. W. G. Campbell explained that he received a form from the Provincial Secretary's Office, to be completed by the College of Physicians and Surgeons of Manitoba for registration under the Companies Act. This was signed by the President and the Registrar. Subsequent forms were received from the same source with instructions to be completed covering the next thirteen years, to be signed by two officers of the organization.

#### Motion:

Moved by Dr. T. Digby Wheeler, Seconded Dr. A. A. Alford: "THAT the President, Dr. Bruce Chown, and the Registrar, Dr. W. G. Campbell, be the signing officers for the Company Act forms." Carried.

#### (b) Consideration of Acts Passed at the Regular Meeting of Legislature, namely: Basic Science Act, Osteopathic Act, and Chiropractors Act.

A brief discussion followed, but no conclusion resulted.

#### Re Payment of Janitor

#### Motion:

Moved by Dr. T. Digby Wheeler, Seconded Dr. N. G. Trimble: "THAT the janitor be paid Five Dollars (\$5.00)." Carried.

#### Adjournment:

The meeting then adjourned.

## Personal Notes and Social News

Dr. and Mrs. George Brock are receiving congratulations on the birth of a son on January 13th, 1946, at the Winnipeg General Hospital.

◆  
Dr. and Mrs. W. H. T. Peake's (Transcona) daughter Helen Ruth was married on January 19th to Andrew Connor, only son of the late Mr. and Mrs. William Connor of Transcona, Man.

◆  
Dr. Gladstone W. Fiddes, of Ocean Falls, B.C., has been appointed medical superintendent of the Brandon General Hospital.

◆  
Dr. A. M. Grant has been appointed Medical Health Officer for Souris, Man.

◆  
Dr. F. J. Lone, formerly of Winnipeg, has taken up practice at Killarney, Man.

◆  
Capt. Joseph Brook has been demobilized from the R.C.A.M.C. after three and a half years' overseas service, and has now taken up civilian practice at Beausejour, Man.

◆  
Dr. M. B. Perrin is now practicing Surgery as an associate at the Winnipeg Clinic.

◆  
Capt. S. D. Russen, after five and a half years with the R.C.A.M.C., two years overseas service, has been demobilized, and is now in civilian practice at 399 Machray Ave., Winnipeg.

◆  
Dr. and Mrs. J. C. Elias, of Elm Creek, Man., are happy to announce the birth of a daughter on January 18th, 1946, at the Winnipeg General Hospital.

◆  
Capt. M. Berger has been demobilized from the R.C.A.M.C. after five and a half years' service, two years and eight months overseas, and is now in civilian practice at 428 Anderson Ave., Winnipeg.

◆  
Surgeon-Lieut. Quinton P. Jacks, recently demobilized after four and a half years' service in the R.C.N.V.R., is now associated with Dr. A. G. Meindl at 410 Medical Arts Building.

Colonel T. E. Holland, recently demobilized from the R.C.A.M.C., has resumed the practice of Surgery and is associated with Dr. John Gunn, 203 Medical Arts Building.

◆  
Dr. L. J. Mongeon has entered medical practice as an associate of Dr. A. G. Meindl, at 410 Medical Arts Building.

◆  
Major Alan Klass, recently returned from overseas, has been demobilized from the R.C.A.M.C. after five and one-half years' service, and is now associated in civilian practice with Dr. Maxwell Rady, 100 Toronto General Trusts Building, Winnipeg.

◆  
Dr. and Mrs. A. G. Henderson are happy to announce the birth of a son (Douglas Norman) on December 13th, 1945, at Monieka, Belgian Congo, Africa.

◆  
Dr. J. E. Hudson, recently demobilized from the R.C.A.M.C. after three and a half years' service, has entered civilian practice in association with his father at Hamiota, Man.

◆  
Dr. L. G. Bell, formerly Wing Commander R.C.A.F., has resumed his practice as an associate at the Winnipeg Clinic.

◆  
Dr. R. F. Myers (U.M. 1945) has entered practice at Brandon, Man.

◆  
Dr. F. G. Boult, formerly an associate at the Winnipeg Clinic, is now practicing at 1, 116 Wilmot Place, Winnipeg.

◆  
Dr. D. J. MacLean, formerly of The Pas, Man., is now practicing at 318 Traverse Ave., Norwood.

◆  
Surgeon-Lieut. W. J. Hart, after serving two years overseas with the R.C.N.V.R., is now on the staff of the Deer Lodge Military Hospital.

◆  
Dr. A. R. Cantelon, recently of 358 Belvidere St., St. James, is now located at 45 Cunningham St., St. Vital, Man.

## Doctors Returned to Civilian Practice From Armed Forces

The following doctors have been discharged from the services and are now back in practice. Their office addresses and telephone numbers are given so that you may easily inform their old patients where they may be found:

Name	Address	Telephone No.	Telephone
Adamson, Dr. Gilbert L., Winnipeg Clinic, Winnipeg	97 284		Kobrinsky, Dr. Sydney, 505 Boyd Bldg., Winnipeg
Adamson, Dr. J. D., Winnipeg General Hospital	87 681		Lansdown, Dr. L. P. .... Pine Falls, 93
Anderson, Dr. Julius, 185 Maryland St., Winnipeg	404 065		Lebbetter, Dr. T. A., Winnipeg Clinic, Winnipeg
Austman, Dr. K. J., 704 McArthur Bldg., Winnipeg	95 826		Lotimer, Dr. L. E., Winnipeg Clinic, Winnipeg
Barrie, Dr. J. G., 11 Rosewarne Ave., St. Vital	204 643		Lund, Dr. P. C., Deer Lodge Hospital, Winnipeg
Bell, Dr. P. G., Deer Lodge Hospital, Winnipeg	62 821		Lyons, Dr. R., 420 Niagara St., Winnipeg
Berger, Dr. M., 428 Anderson Ave., Winnipeg			MacDonnel, Dr. J. A. K. (lady), Winnipeg Clinic
Bleeks, Dr. Cherry K., 105 Medical Arts, Bldg., Wpg.	93 273		MacKinnon, Dr. W. B., 661 Broadway, Winnipeg
Boyd, Dr. Wm. J., 1012 Ingersoll St., Winnipeg	24 427		MacLeod, Dr. J. W., Winnipeg Clinic, Winnipeg
Brown, Dr. M. M., 508 Medical Arts Bldg., Winnipeg	93 889		MacNeil, Dr. Robt. W., Children's Hospital, Wpg.
Cadham, Dr. R. G., City Hall, Winnipeg	849 122		Malkin, Dr. S., 701 Boyd Bldg., Winnipeg
Carleton, Dr. M., 603 Boyd Bldg., Winnipeg	94 763		Mathewson, Dr. F. A. L., 308 Med. Arts Bldg., Wpg.
Clark, Dr. C. W., 216 Medical Arts Bldg., Winnipeg	94 354		McFarlane, Dr. R. H., Internes' Quarters,
Cohen, Dr. R., 600 Boyd Bldg., Winnipeg	93 275		General Hospital, Winnipeg
Coke, Dr. R., Royal Alexandra Hotel, Winnipeg	92 141		McIntyre, Dr. Donald N. C., 303 Med. Arts Bldg., Wpg.
Cooper, Dr. Ross H., 212 Medical Arts Bldg., Winnipeg	93 103		McKenty, Dr. J. Stewart, 514 Med. Arts Bldg., Wpg.
Corrigan, Dr. C. E., 307 Waterloo St., Winnipeg	401 271		McKenty, Dr. V. J., 205 Boyd Bldg., Winnipeg
Cram, Dr. J. B., 409 Power Bldg., Winnipeg	95 165		McLandress, Dr. Murray, Apt. "D" Brentwood Lodge,
Croll, Dr. L. D., 661 Broadway, Winnipeg	72 138		Winnipeg
Davidson, Dr. Kenneth, 6 Medical Arts Bldg., Wpg.	95 683		McNicol, Dr. H. L., Deer Lodge Hospital, Winnipeg
Davidson, Dr. A. M., 6 Medical Arts Bldg., Winnipeg	95 683		MacNeil, Dr. Robt. W., Children's Hospital, Wpg.
Downey, Dr. J. L., 333 Bartlett Ave., Winnipeg	46 751		Medovy, Dr. Harry, 401 Boyd Bldg., Winnipeg
Easton, Dr. S., 216-7 Curry Bldg., Winnipeg	26 477		Mitchell, Dr. J. R., Ste. 10 Fairhaven Apts., Winnipeg
Elliott, Dr. M. R., 141 Ferndale Ave., Norwood			Neilson, Dr. Clive, 404 Medical Arts Bldg., Winnipeg
Elvin, Dr. Norman L., 314 Medical Arts Bldg., Wpg.	95 317		Perrin, Dr. M. B., Winnipeg Clinic, Winnipeg
Fahrni, Dr. Gordon S., 105 Medical Arts Bldg., Wpg.	93 273		Ramsay, Dr. F. G., 378 Borebank St., Winnipeg
Fairfield, Dr. G. C. .... Portage la Prairie, Man.			Revell, Dr. D. G., Winnipeg General Hospital, Wpg.
Flett, Dr. R. O., 203 Medical Arts Bldg., Winnipeg	92 934		Richardson, Dr. R. W., 105 Medical Arts Bldg., Wpg.
Gyde, Dr. M. C. .... St. Pierre, Man.			Riley, Dr. H. W., Winnipeg Clinic, Winnipeg
Hall, Dr. C. W., 1328 Pembina Highway, Fort Garry, Man.	49 498		Rosenfield, Dr. V. L., 405 Avenue Bldg., Winnipeg
Hamilton, Dr. Glen F., 408 Medical Arts Bldg., Wpg.	93 846		Rumball, Dr. A. C., Deer Lodge Hospital, Winnipeg
Hart, Dr. W. J., Deer Lodge Hospital, Winnipeg	62 821		Rusen, Dr. S. D., 399 Machray Ave., Winnipeg
Hastings, Dr. D. J., 634 Somerset Bldg., Winnipeg	98 727		Schoemperlen, Dr. C. B., 216 Medical Arts Bldg., Wpg.
Henneberg, Dr. C. C., 302 Medical Arts Bldg., Wpg.	92 710		Smith, Dr. F. Hartley, 86 Tache Ave., Norwood, Man.
Hillsman, Dr. J. A., 308 Medical Arts Bldg., Winnipeg	97 329		Sommerville, Dr. A. N., 614 St. Mary's Rd., St. Vital
Hitesman, Dr. R. J., 512 Medical Arts Bldg., Wpg.	94 808		Sommerville, Dr. A. N., 614 St. Mary's Rd., St. Vital
Holland, Dr. T. E., 203 Medical Arts Bldg., Winnipeg	96 948		Stephens, Dr. Gordon M., 635 Henderson Hy., Wpg.
Jacks, Dr. Q. D., 410 Medical Arts Bldg., Winnipeg	95 309		Stephenson, Dr. Earl, 409 Power Bldg., Winnipeg
Jacks, Dr. Q. D., 1184 Wolseley Ave., Winnipeg			Swartz, Dr. David, 303 Medical Arts Bldg., Winnipeg
Jauvoish, Dr. S., 206 Boyd Bldg., Winnipeg	93 240		Swan, Dr. R. S., 215 Medical Arts Bldg., Winnipeg
Kilgour, Dr. J. M., Winnipeg Clinic, Winnipeg	97 284		Tanner, Dr. A. R., 310 Medical Arts Bldg., Winnipeg
Klass, Dr. A. A., 132 Matheson Ave., Winnipeg	55 022		Taylor, Dr. C. H., 606 Boyd Bldg., Winnipeg
			Tisdale, Dr. Paul K., Deer Lodge Hospital, Winnipeg
			Walton, Dr. C. H. A., Winnipeg Clinic, Winnipeg
			Walton, Dr. Fred A., 3 Locarno Apts., Winnipeg
			Whelpley, Dr. E. H., 586 Ingersoll St., Winnipeg
			Brook, Dr. Joseph .... Beausejour
			Bissett, Dr. E. D. R. .... Pine Falls
			Brownlee, Dr. T. I. .... Russell
			Crawford, Dr. C. S. .... The Pas
			Davidson, Dr. D. A. .... Cartwright
			Jacobs, Dr. A. L. .... The Pas
			Varverikos, Dr. E. D. .... Selkirk

## Manitoba Medical Service

I wish to thank the many doctors who have co-operated with Mr. Richardson and myself in detecting abuses by patients; without that co-operation we would have been unable to save some thousands of dollars; in time these abuses will be reduced, but will never entirely disappear. We have received many useful and some lengthy reports, which enabled us to decide for or against the patients' claims. I may say that we never note the doctor as influencing our decision, since we do not wish to compromise the patient-doctor relationship.

Doctors will appreciate that in ruling on doubtful claims I have the very difficult task of trying to think as a layman. To you or me marked constipation in a middle-aged individual, with some loss of weight, anemia, gas (?) pains and the passage of blood suggest something of serious significance, but probably not to the layman; the elderly individual who finds that he has to get up frequently at night and has difficulty in urination, comes to the doctor to get something stronger than a well-advertised kidney pill, and is very much surprised when told that he requires an operation; yet such a case might be authorized, even though the individual had recently joined.

A certain medical service plan in Canada absolves liability for pre-existing ailments known unknown to the patient; I think this is very fair; we try with the co-operation of the doctor to find out what was the motive which induced the patient to join the service; in most cases we get a report in writing from both patient and doctor; if we cannot reach a decision, then it is brought before the Executive Committee for a hearing. A few doctors appear to look on this as a commercial organization, and we feel that the evidence is weighted against us; but we cannot do anything else than accept the physician's view.

I have gone into this at some length, because a full explanation will enable you to understand why we impose extra work on you, and why certain decisions are reached. We have been trying to get the date of acceptance stamped on the patient's card, so that if it should show a recent admission it would put the doctor on his guard, and elective surgery or prolonged treatment would not be done before authority was obtained. It would perhaps save you some time if I explained that it is previous history that we want, rather than a description of the disease and treatment.

The following regulations have been laid down by the Executive Committee of the Manitoba Medical Service. Specialists going outside their particular field. The Manitoba Medical Service

has no authority to change the rules laid down by the M.M.A.; most members appear to be familiar with these rules. Fees will not be allowed for certificates.

In response to questions raised by the E.E.N. & T. Section, the Manitoba Medical Service was in communication with the Executive Committee of the M.M.A. The latter replied that the fee scale of this Section had been filed until the whole subject of fees had been reviewed.

Some of the statistical figures below are worthy of your attention, particularly the trend in the ancillary services, consisting mainly of X-Ray and laboratory work. How much higher it will go it would be impossible to estimate, but while fees and utilization are factors, an increase will in time affect the percentage paid to practitioners for clinical services.

E. S. Moorhead, M.B.,  
Medical Director.

### Administration Notes

Ancillary Service utilization is increasing steadily as shown by the following:

July—13.6% of total claims amount approved.

August—16.6% of total claims amount approved.

September—17.2% of total claims amount approved.

October—20.7% of total claims amount approved.

November—21.8% of total claims amount approved.

December—23.0% of total claims amount approved.

Membership as at December, 1945, was as follows:

Plan "A" Subscribers.....	1,645
Dependents.....	1,317
	2,962
Plan "B" Subscribers.....	9,907
Dependents.....	12,246
	22,153
Total .....	25,115

3,245 claims were passed through in December, 1945, amounting to \$28,594.75, and were paid on the usual basis, which brought the payment to \$19,646.26 or 68.7%.

Since we started case investigations in July, 1945, up to the end of December, 1945, an amount of \$8,236.20 was returned mostly for undeclared pre-existing conditions. Without the co-operation of the medical members the percentage payment now made could not possibly be continued.

A. G. Richardson,  
Office Manager.

## Medical Happenings for February

**Tuesday, 5—**

Luncheon, Misericordia Hospital, 12:30 p.m.

**Wednesday, 6—**

Tumor Clinic, Winnipeg General Hospital,  
9:00 a.m.

**Thursday, 7—**

Luncheon, Winnipeg General Hospital, 12:30 p.m.

**Friday, 8—**

Tumor Clinic, St. Boniface Hospital, 10:00 a.m.

**Wednesday, 13—**

Meeting, Council, Winnipeg Medical Society,  
12:30 p.m.

**Wednesday, 13—**

Tumor Clinic, Winnipeg General Hospital,  
9:00 a.m.

**Thursday, 14—**

Ward Rounds, Children's Hospital, 11:00 a.m.

**Thursday, 14—**

Luncheon, St. Boniface Hospital, 12:30 p.m.

**Friday, 15—**

Tumor Clinic, St. Boniface Hospital, 10:00 a.m.

**Friday, 15—**

Meeting, Winnipeg Medical Society, 8:15 p.m.,  
Medical College.

**Tuesday, 19—**

Luncheon, Grace Hospital, 12:30 p.m.

**Tuesday, 19—**

Luncheon, St. Joseph's Hospital, 12:30 p.m.

**Wednesday, 20—**

Tumor Clinic, Winnipeg General Hospital,  
9:00 a.m.

**Thursday, 21—**

Ward Rounds, Children's Hospital, 11:00 a.m.

**Thursday, 21—**

Luncheon, Winnipeg General Hospital, 12:30 p.m.

**Friday, 22—**

Tumor Clinic, St. Boniface Hospital, 10:00 a.m.

**Friday, 22—**

Luncheon, Victoria Hospital, 12:30 p.m.

**Wednesday, 27—**

Tumor Clinic, Winnipeg General Hospital,  
9:00 a.m.

**Thursday, 28—**

Ward Rounds, Children's Hospital, 11:00 a.m.

**Thursday, 28—**

Luncheon, St. Boniface Hospital, 12:30 p.m.



THE CANADA STARCH CO. Limited  
Montreal

Please send me

- FEEDING CALCULATOR.
- Book "CORN SYRUP FOR INFANT FEEDING."
- INFANT FORMULA PADS.
- Book "THE EXPECTANT MOTHER."
- Book "DEXTROSOL."

Name \_\_\_\_\_

Address \_\_\_\_\_

## *Readily Digestible* Milk Modifiers for Infant Feeding

Crown Brand and Lily White Corn Syrups are well known to the medical profession as a thoroughly safe and satisfactory carbohydrate for use as a milk modifier in the bottle feeding of infants.

These pure corn syrups can be readily digested and do not irritate the delicate intestinal tract of the infant.

Either may be used as an adjunct to any milk formulae.

Crown Brand and Lily White Corn Syrups are produced under the most exacting hygienic conditions by the oldest and most experienced refiners of corn syrups in Canada, an assurance of their absolute purity.

**"CROWN BRAND" and  
"LILY WHITE"**

**CORN SYRUPS**

Manufactured by

THE CANADA STARCH COMPANY LIMITED  
Montreal and Toronto

**For Doctors Only**—A convenient pocket calculator, with varied infant feeding formulae employing these two famous corn syrups . . . a scientific infant formula pads, are available on request, also treatise in book form for infant feeding . . . and an interesting booklet on prenatal care. Kindly clip the coupon and this material will be mailed to you immediately.